

!

!

!

!

!

!

!

!

- * . . / & ! () % & 0 \$) * 1 2 0 3 !

" # \$ % & !

! ' & ! () * % + , !!

?<!?)&2)' .#52* ' &!

' F%5\$A!+4(!)5%&!<(\$+F% . !#)!+4(!G# ? *\$!(%*0!+4(!(*%; . ! : 4%5&+5*\$? #8(? (\$+!&F))(% (7!*+!+4(!

%F+4;(&&!4*\$7&!#)!+4(!G# ? *\$!*F+4#%5+5(&! : 4%5&+5*\$&!H(%(!I(%&<F+(7!5\$!&I#%*75<!% (A5#\$&!#)!+4(!

G# ? *\$!J ? I5% (0!*\$7!+4(!G# ? *\$!5 ? I(%5*;*F+4#%5+5(&!);+!+4(!\$((7!+#!+4H*%+!+45&! ? #8(? (\$+!

K(<*F&(!+4(. !)(% (7! : 4%5&+5*\$5+ . !H*%!*+4%(*+!+#!+4(!J ? I5%(>!L+!H*%&!5\$!+4(!G# ? *\$!#)5<5*;&M!

K(&+!5\$+(% (&+!+#!&FII% (&&!5\$&F% (<+5#\$!*\$7!(K(;;5#\$>!L\$!#%7(%!+#!NF(;;!) (%&!#)!G# ? *\$!

I(%&<F+5#\$0!&# ? (!;(*7(%&!5\$!+4(!(*%; . ! : 4%5&+5*\$? #8(? (\$+!4*7!+#!&4#H!+4(!G# ? *\$!

F+4#%5+5(&!+4+!+4(5%\$ (H!% (;5A5#F&! ? #8(? (\$+!H*%&!\$#!+4%(*+!+#!+4(!J ? I5%(>!G(7*+5#\$!

<%5+5<*;!&+F75(&!#)!OFC(M&!@#&I(;;!&4#H!+4*+!OFC(M&!&+*+(A . !+#!*;;(85*+(!&F<4!)(%&!H*%&!+#!

H%5+(!45&!@#&I(;;!5\$!+4(!)#% ? !#)!*\$!! "#\$#%&!>!6\$!! "#\$#%&!>!5&!*!7()(\$&(0!*\$70!5\$!OFC(M&!<*&(0!

OF<*\$!! "#\$#%&!>!H*%&!<#\$&+F<+58(; . !5\$<#%I#%*+(7!5\$+#!45&!&+#! . !#)!+4(!;5) (*\$7!7(*+4!#)!=(&F&!

G# ? *\$!%F;(%&!%#F+5\$(; . !7(? *\$7(7!<# ? I;(+(!FK&(%85(\$<(!+#!5 ? I(%5*;%F;(0!*\$7!&F%8(5;;(7!

\$7! ? #5+##(7!\$. ! ? #8(? (\$+!&!+4*+!H(%(!&(\$!%&!%K(;;5#F&!#%+!% (*&#F&#&!345&! "#\$#%&!34(&5&!

H5;;!7#<F ? (\$+!*!OF<*\$!;(5+ ? #+5)!P%(<F%(\$+!+4(? (Q!K(. #5\$!+4(!+*%75+5#\$*;; . !*<<(I+(7!IF%I#&(!

#)!!"#\$#%&!>!0!*\$7!45A4;5A4+!*!<#%#;;*% . !OF<*\$!5\$+(% (&+!5\$!+4(!@#&I(;;#)!OFC(>!R\$!+4(!&F%)*<(0!

+4(!&8*\$A(;5&+!&#FA4+!+#!7(85&(!*!H%5+(\$!7)(\$&(!#)! : 4%5&+5*\$5+ . M&!I#;5+5<*;!5\$#<(\$<(!+#!+4(!

G# ? *\$&0!KF+!*)+(!*!<;#&(%!% (*75\$A!#)!+4(!@#&I(;;0!H(!H5;;!&((!+4*+!+4(!*+F*;; . !4*7!*\$!

#II#&5+5#\$*;!IF%I#&(0!*&!H(;;>! S 4(\$+!45\$C5\$A!#)!OFC(M&!@#&I(;;!&#;(; . !*%!*\$!! "#\$#%&!>!0!5+!5&!

&+*\$A(!+#!A%*II;(!H5+4!+4(!57(*!#)!OFC(!*!K(5\$A!+#!*;; . !<# ? I;5*\$+!H5+4!+4(!#II%(&&58(!

%)(%#!#S+#;#A5<*;% (8(%&*;&!#%!(X5&+(\$+5*;!<4*\$A(&!5\$!&+*+F&,!+4(!K;5\$7!K(5\$A!*K;(!+#!&((0!+4(!
 4F\$A% . !K(5\$A!)(70!+4(!&5<C!K(5\$A!<F%(70!(+>!34(&(!5\$&+*\$<(&!<*\$K(!)#F\$7!+4#FA4#F!+4(!
 @#&I(;#)!OFC(!*!&OFC(!H%5+(&!I%#;5)<*;;. !*K#F+75))(%(\$+!. I(&!#)!&+*+F&!%(8(%&*;!+#!<#S8(.!
 45&!<#\$(? I+!#H%*7&!+4(!G# ? *\$!(A5 ? (>!OFC(!H(*8(&!45&!4577(\$!+%*\$&<%5I+!5\$+#! ? F;+5I;(!
 ;5+(%*% . !A(\$(&!*\$7!;5+(%*% . !)#% ? &!5\$!45&!A#&I(;T!4 . ? \$&!I*%*K;(&!I%#I4(<5(&!*\$7!(8(\$!
 I*%*((\$+5<P ? #*%*Q!(X* ? I;(&!&(+!K . !=(&F&!7F%5\$A!+4(!<#F%&(!#)!45&! ? 5\$5&+ . >!R\$(!&*;5(\$+!
 5\$&+*\$<(!#)!&+*+F&!%(8(%&*;!#<<F%&!7F%5\$A!+4(!Y*^*%(+4!I%#<;* ? *+5#\$!POFC(!_,E`T]2Q)!345&!
 (8(\$+!*C(&!I;*<(!5\$!Y*^*%(+4!H4(\$!=(&F&!*\$#\$F\$<(&!+4*+!*I*%&&*A(!)# ? !+4(!R;7!3 (&+* ? (\$+!
 4*%&!<# ? (!+%F(!5\$!45&!I%(&(\$<(>!=(&F&!I%(*<4(&;!U34(!DI5%5+!#)!+4(!O#%7!5&!FI#\$(? (0!K(<*F&(!4(!
 4*%&!*\$#5\$+(7! ? (!+#!K%5\$A!A##7!\$(H&!+#!+4(!I##%>!" (!4*%&!&(\$+! ? (!+#!I%#<;*5 ? !%(!;(*&(!+#!+4(!
 <*I+58(&!*\$7!%(<#8(% . !#)!&5A4+!+#!+4(!K;5\$70!+#!;(+!+4(!#II%(&&(7!)%((0!+#!I%#<;*5 ? !+4(!. (%*!#)!
 +4(!O#%7M&!) *8#%>V"!345&!5\$&+*\$<(!#)!&+*+F&!%(8(%&*;!5\$!OFC(M&!@#&I(;&!4#H&!+4*+!+4#&(!H4#!
 K(\$()5+!)%# ? !@#7M&!&*;8*+5#\$!*\$7!K(\$()5<(\$<(!H5;,\$#+!K(!7%*H\$I%5 ? *%5; . !)%# ? !+4(!%*\$C&!#)!
 +4(!%5<40!+4(!I%#I(%+5(7!#%!+4(!I#H(%F);!L\$&+(*7!+4(. !H5;;!K(!+4#&(!#)!;#H(%!&+*+F&!)

L\$!#%7(%!+#!F\$7(%&+*\$7!OFC(M&!4577(\$!+%*\$&<%5I+!#)!75&&(\$+0!H(! ? F&+!)5%&+!*\$*;. ^(!+4(!

)#;;#H5\$A,!PEQ!H4#!4(!H*%&!*%&!*I(%&#S0!P1Q!+4(!<# ? ? F\$5+5(&!)#%!H4# ? !4(!H*%&!H%5+5\$A0!*\$7!P]Q!

45&!*I#;#A(+5<!*\$7!H5+45\$!+4(!@#&I(;#)!OFC(!5&(;)>!6)+(%!H(!4*8(!% (85(H(7!+4(&(!+4%((!

" !OFC(!_,E/TE\>!6;;!a5K;(!NF#+*+5#\$&!*\$7!%)(%(\$<(&!5\$!+45&!34(&5&!H5;;!K(!+*C(\$!)%# ? ,!
 - 5<4*(!' >! : ##A*\$0!(7>!7') +8) 9+ : ;3#- (+2**#,!,) (<+&=\$)>+2 ?%I *) ,) (+7 ' &- (+@ (&, &#*A+ B&, '+
 ,') +2 "#/-C" ' !D O ? ,) -# /! *#*%& /! \$+<##E .>!Y(H!G(85&(7!D+*\$7*%7! b (%&5#\$!PY(H!Z#%C,!RX)#%7!
 [\$58(%&5+ . !9%(&&0!122cQ0!E2)]>!

!

-

5 ? I#%+*\$+!%FK%5<&0!H(!H5;;!K(!*K;(!+#!F\$7(%&+*\$7!H4 . !+4(!OF<*\$! I#;#A(+5<!)%* ? 5\$A!H*!&!&#!

I58#*+;!5\$!OFC(M&!I%(&(\$+*+5#\$!#)!+4(!=&F&! ? #8(? (\$+!H5+45\$!*!G# ? *\$!L ? I(%5*+;!<#\$(X+>! S (!

H5;;!+4(\$!(X* ? 5\$(!+4(!)F\$<+5#\$!#)!+4(!OF<*\$!4577(\$!+%*\$&<%5I+&!5\$!#%7(%!+#!<# ? I%(4(\$7!H4 . !

OFC(!\$(7(7!+#!(? I;# . !+45&!;5+(%*% . !&+%*+(A . 0!*\$7!+4(!8*%5#F&!)#% ? &!*\$7!)F\$<+5#\$!#)!+4(&(!

4577(\$!+%*\$&<%5I+&!H5+45\$!+4(!@#&I(;#)!OFC(>!!

=* ? (&! : >!D<#++M&!K##C!4*!&!(XI#&(7!+4(!*KF\$7*\$+!F&(!#)!4577(\$!+%*\$&<%5I+&!H5+45\$!

;5+(%*+F%(0!45&+## . 0!*\$7!+4(!I#;5+5<&!#)!<F;+F%(&!+4%#FA4#F+!+4(!H#%;70!*\$7!5+!H5;;!K(!F&(7!+#!,PEQ!

5\$+(%I%(!+4(!&5A\$5)5<*\$<(!#)!45&!H#%C!5\$!+4(!K%#*7(%!&<4(? (!#)!Y(H!3 (&+* ? (\$+!&<4#; *%&45I0!

P1Q!(XI;*5\$!H4 . !OFC(!\$(7(7!+#!F&(!*!4577(\$!+%*\$&<%5I+0!P]Q!7#<F ? (\$+!+4(!<4*%*<+(%5&+5<&!#)!

+4(!OF<*\$!IFK;5<+!+%*\$&<%5I+0!P_Q!5;;F&+%*+(!+4(!8*%5#F&!+ . I(&!#)!I#;5+5<*;!75&AF5&(!)#F\$7!5\$!+4(!

OF<*\$!4577(\$!+%*\$&<%5I+0!*\$7!PdQ!45A4;5A4+!+4(!5\$)*I#;5+5<&!#)!OF<*\$!&FK#%75\$*+(!A#%FI&!

H5+45\$!+4(!G# ? *\$!L ? I(%5*+;!<#\$(X+>! S (!*%(!+4(\$!(NF5II(7!+#!5\$+(%I%(!OFC(M&!@#&I(;!5\$!*!

\$(H!;5A4+TT!#\$(!+4*+!K%#*#<4(&!\$(H!+(%5+## . !5\$!&+F75(&!#)!+4(!@#&I(;#)!OFC(>!34(!G# ? *\$!

*F+4#%5+5(&!H#F;7!;5C(; . !#\$+!4*8(!75&<(%\$(7!+4(!U4577(\$!+%*\$&<%5I+&0V!*\$7!I%5#%!+#!5+&!

75&<#8(% . 0!*! ? *e#%5+ . !#)!OF<*\$!&<4#; *%&!757!\$#+!7(;8(!7((I; . !5\$+#!+4(!I%#&I(<+#!#)!OF<*\$!

4577(\$!+%*\$&<%5I+!*\$7!75&&(\$+!+%*75+5#\$&>!D<#++M&!+4(##5^5\$A!*K#F+!+4(!<(\$+%;5+ . !#)!*!I#;5+5<&!#)!

4577(\$!+%*\$&<%5I+&!H5+45\$!&FK#%75\$*+(!<F;+F%(&!*\$7!<# ? ? F\$5+5(&!+%*\$&)#% ? &!*\$7!(\$;*A(&!#F%!

57(#;#A.0!*\$7!I#H(%0!*\$7!+#!I%# ? #+(!*\$!*;+(\$*+58(!<#F\$+(%T<F;+F%*;!*\$7!(;5A5#F&!H#%;785(H!

5\$!;5A4+!#)!+4(!;5)(!*\$7!7(*+4!#)!=(&F&!+4(!: 4%5&!H5+45\$!+4(!)5%&+!<(\$+F% .>!

!

?<!(6/!9 '01/+!' :!"#; /, !@#26 ')3!> ' AA#&*2*/03!%& . !26/!4 ' A%&!A1/) *%+!># +2!*&!
@0*%!B * & ')!

!
!

6>!6F+4#%!*\$7!D#F%<(&!

3%*75+5#\$!&FAA(&+&!+4(!45&+##%5<*;!OFC(!H* &!+*%*8(;5\$A!I4 . &5<5*\$!H4#!H* &!\$# +!#\$(!#)!

+4(!#%5A5\$*;!+H(;8(!75&<5I;(&!#)!=(&F&>#!R\$(!#)!+4(!(*&#\$&!H(!C\$#H!+4(!&+*+F&!#)!45&!

#<<FI*+5#\$!5&!K(<*F&(!+4(!*F+4#%!#)!: #;##&&5*\$&!7(&<%5K(&!OFC(!* &!UOFC(0!+4(!K(;#8(7!

I4 . &5<5*\$V!P : #;##&&5*\$&!_ ,E_Q>^!34(!+45%7!(8*\$A(;5&+!757!\$#+!H5+\$(&&!*\$. !#)!+4(!8(\$+&!4(!H%#+(!

K#F+!\$70!5\$&+(*70!A*+4(%(7!45&!5\$)#% ? *+5#\$!)%# ? ! ? F;+5I;(!&#F%<(&!+4*+!+(&+(7!+#!+4(!8(\$+&!

#)!=(&F&!5%&+!4*\$7!P;5+(&#% . !&#F%<(&!5\$<;F7(! - *%C0!UO0V!*\$7!U f VQ>! S 5+4!+4*+!K(5\$A!&*570!OFC(!

H* &!857(\$+; . !7(+(& ? 5\$(7!+#!H%5+(!*K#F+!+4(!A##7!\$(H&!#)!+4(!;5)(!*\$7!7(*+4!#)!=(&F&!H5+4!

A%(*+!*<<F%* < . 0!<*\$7#%0!*\$7!(;#NF(\$<(!POFC(!E,]T_Q>!!

OFC(M&!@#&I(;!5&!K(;5(8(7!+#!K(!+4(!)5%&+!#)!*+H#TI*%+!H#%Cg!+4(!@#&I(;!#)!OFC(!

<# \$+*5\$&!5\$)#% ? *+5#\$!*K#F+!+4(!;5)(\$7!7(*+4!#)!=(&F&0!*\$7!+4(!K##C!#)!+4(!6<+&!#)!+4(!

6 I#&+;(&0!+4(!&(NF(;!+#!+4(!@#&I(;0!7(&<%5K(&!+4(!&I%(*7!#)!+4(!(*%; . ! : 4F%<4!*)(&!+4(!

&<(\$&5#\$!#)!=(&F&!L+!5&!4%7!+#!I5\$I#5\$+!+4(!X* <+!7*+(!+4*+!+4(!A#&I(;!H* &!H%5+(\$0!KF+! ? #&+!

&<4#; *%&!I#%I#&(!+4*+!OFC(!H* &!H%5+5\$A!K(+H((\$/ dT\2! : J>%!B#%!#\$(!+#!+F; . !F\$7(%&+*\$7!+4(!

@#&I(;!#)!OFC(M&!* I#;#A(+5<!<4*%* <+(&0!#\$(! ? F&+!F\$7(%&+*\$7!+4*+!+4(!@#&I(;!#)!OFC(!H* &!

#!9*F;*!B%(7%5C&(\$0!F-#I+G). ? . +, #+H' -&. , >+7') + : -&%&* . +#3+, ') +8)9+7). , ! I) * , I I ! %) + #3+G) . ? . !
PY(H! " *8(\$,!Z* ; (! [\$58(%&5+ . !9%(&&0!E\ //Q0!1cT] `g! ' *857!O>!a *%0!8)9+7). , ! I) * , J , #-C0!1&'!
(7>!PY(H!Z#%C,! S *7&H#%+40!E\ \dQ0!1 \]T]21g! - *%5#\$!O>!D#*%7&0!U34(!@#&I(;!6<<#%75\$A!+#!
OFC(AV+7') +8)9+ : ;3#- (+2 *%# , ! ,) (+<&=\$)0!\]T\ d>!
\$! : #;##&&5*\$&!_ ,E_Q>!!
%!D#*%7&0!U34(!@#&I(;!6<<#%75\$A!+#!OFC(0V+_>!

H%5+(\$!* ? 57&+!+4(!G# ? *\$!I(%&(<F+5#\$&!#)!(*%; .! : 4%5&+5*\$&!)#;;#H5\$A!7(&+%F<+5#\$!#)!+4(!

D(<#\$7!3(? I;>!!

34(!I(%5#7!#)!+F ? F;+F#F&!I#;5+5<*;!F\$%(&+!A58(&!*!<;(*%!5\$75<*+5#\$!*&!+#!H4 . !OFC(!)(;+!

<# ? I(;;(7!+#!H%5+(!45&!A#&I(;,!4(!H*\$+(7!+#!&4#H!+4(!G# ? *\$!J ? I5%(!+4*+! : 4%5&+5*\$5+ . !H*&!

\$#!*!+4%(*+!#!+4(!L ? I(%5*;!<F;+!34(!@#&I(;!<*\$!K(!&((!*\$&!*\$!*+ (? I+!#!(X#\$(%*+(!+4(!

: 4%5&+5*\$&!)%# ? !+4(!% (;(\$+;(&&!G# ? *\$!75&<%5 ? 5\$*+5\$!+4*+!+4(. !H(%(!)*<5\$A>!345&!5&!H4 . !

OFC(M&!@#&I(;!<#\$+*5\$&

%(%)%(7!+#!*!WOM0!*&!4(15\$<;F7(&! ? *\$. !F\$5NF(!I**K;(&!*\$7!*\$(<7#+*;! (8(\$+&!*K#F+!=(&F&!
H5+45\$!45&!\$*%*+58(>!9F+!5\$+#!<#\$(X+!H5+4!+4(!% (? *5\$5\$A!A#&I(;&0!OFC(M&!@#&I(;!4*!&!&5 ? 5;*%!
&+%F<+F%(!+#! - *++4(HM&!*\$7! - *%CM&!\$*%*+58(&!*\$70!*&!H5+4! - *++4(H0!OFC(!(\$&F%(&!+4*+!45&!
\$75(\$<(!C\$#H&!+4+!=(&F&!5&!)F);5;;5\$A!*\$<5(\$+!=(H5&4!&<%5I+F%(!<#\$<(%\$5\$A!+4(! - (&5*4>!)!

!

C<! "#\$%&!> ' AA#&*2D!E> ' AA#&*2*/OF!

OFC(M&!@#&I(;!<#\$+*5\$&!*! ? F;+5F7(!#)!+4(? (&!*\$7!5\$75<*+##&!+4*+!I#857(!<;F(&!*K#F+!
H4# ? !4(!H*!&!H%5+5\$A!)#%>!6!<;#&(!%(*75\$A!#)!+4(!@#&I(;!&FAA(&+&!+4*+!OFC(!H*!&!H%5+5\$A!
I%5 ? *%5; . !)#%+4(!)#;;#H5\$A!<# ? ? F\$5+5(&,+4(!%5<4!*\$7!+4(!7F<*+(70!+4(!@(\$+5;(&0!+4(!=(H&!+4(!
I##0!#F+<*+&0!*\$7!H# ? (\$)!34(!8*\$A(;5&+!(&&(\$+5*;; . !H%#+(!45&!A#&I(;!)#%!*\$. #\$(!H4#!H*!&!
H5;;5\$A!+#!%(<(58(!+4(!A##7!\$(H&0!*\$7!&#!IF+!)#H*%7!*\$5\$<;F&58(! ? (&&*A(>!

34(!+4(? (&!5\$!OFC(M&!@#&I(;!4*8(!*\$!(857(\$+&(\$&(!#)!7F%*K5;5+ . 0!*&!+4(. !)*%(!

I%# ? 5\$(\$+!*\$7!%(<F%!)# ? !+4(!L\$)*\$< . !Y*%*+58(!+#!+4(!*&(&5#\$!#)!=(&F&!D# ? (!#)!+4(&(!
+4(? (&!*(!8(\$!<#\$+5\$F(7!+4%#FA4!+#!45&!&(<#\$7!H#%C!5\$!6<+&!6)+(%!(*75\$A!+4(!@#&I(;0!
+4(%(!5&!\$#!7#FK+!+4*+!OFC(!H%#+(!K#F+!*! ? F;+5F7(!#)!#F+<*+&!*\$7!%(<#%7(7!=(&F&M!
5\$+(%*<+5#\$&!H5+4!+4(? >!B## ? !+45&0!5+!5&!7(7F<(7!+4*+!#F+<*+&!<# ? I%# ? 5&>7!*!\$#+*K;(!I%(&(\$<(!
H5+45\$!+4(!OF<*\$!<# ? ? F\$5+5(&!OFC(! ? *C(&!5+!<;(*%+4*+!=(&F&M! ? (&&*A(!H*!&!#))%(7!+#!
\$. #\$(!H4#!H#F;7!%(<(58(!5+0!5\$<;F75\$A!#F+<+&!L\$!4(%!*%+5<;(!*K#F+!#F+<*+&!5\$!OFC(M&!

)! - *++4(H!O>!DC5\$\$(%0!2+H#I " ! *&#*+, #+, ')+8)9+7)..! I)*,5+7')+M#. ")\$!*(+2/, .+P3(X*&!,
a* . ;#%! [\$8(%&5+ . !9%(&&0!12EcQ0+EcE>!

@#&I(;0!h*+4.! - <G(. \$#;7&!% (5\$)#%<(&!+45&!IF%I#&(!*!&!&4(!#K&(%8(&!+4*+!=(&F&M!U75&*K5;5+ .!
 ? 5\$5&+%. j 5&!+4(!8(% .!(&&(\$<(!#)!+4(!A#&I(;V*! - <G(. \$#;7&!*<C\$#H;(7A(&!(=&F&M! ? 5%*<;(&0!
 4(*;5\$A&!*\$7!5\$+(%*<+5#\$&!H5+4!+4(!#F+<*+&!5\$!#%7(%!+#!K#;&+(!%4(%!*%AF ? (\$+>!D4(!)F%+4(%!\$#+(&!
 +4*+!=(&F&M!K(\$8#;(\$<(!+H*%7!#F+<*+&!5&!&!(X<(I+5#*\$*;!5\$!OFC(M&!@#&I(;0!*&!<*\$!K(!
 7#<F ? (\$+(7!K. !*!<# ? I*%5&#H5+4!+4(!+4((!% (? *5\$5\$A!@#&I(;&D4(!H5+(&;!UY#!#4(%!A#&I(;!
 I#%+*% . &!=(&F&M!%(*;+5#\$&45I!+#!#F+<*+&!+#!NF5+(!+4(!X+(\$+!*&!OFC(>V+!34(%(!<*\$!K(!\$#!7#FK+!
 +4(!OF<*\$!<# ? ? F\$5+5(&!5\$<;F7(!+4(!#F+<*+&!#)!&#<5(+. !K(<*\$F&(!45&!@#&I(;!UI#%+*% . &!=(&F&5\$!
 +4(!7((I(&+!*\$7! ? #&+!5\$+5 ? *+(!&(\$&(0!*&!*)%5(\$7!+#!#F+<*+&!*\$7!&5\$\$(%&V! ,!!

6!<#%#; ;*% . !+#!OFC(M&!5\$+(% (&+!5\$!#F+<*+&!5&!45&!<#<(%\$!*K#F+!+4(!8(% . !I##>!34(!

(8*\$A(;5&+!<*\$!K(!&((!\$!+#!I* . !&I(<5*;*+(\$+5#\$!+#!UH(*;+4!*\$7!I#&&(&&5#\$&V! !5\$!45&!I*%*K; (&0!
)#%!(X* ? I;(0!*\$7!H*%\$&!#)!+4(!7*\$A(%&!#)!(X<(&&!=(&F&!5&!#)+(\$!&((!H*%\$5\$A!#4(%&!*K#F+!+4(!
 7*\$A(%&!#)!*<<F ? F;*5\$A!H(*;+4!*\$7!\$#+!IF+5\$A!5!+#!A##7!F&(TT!A585\$A!5!*H* . !+#!(5+4(%!
 <4*%5+ . !#%!+#!+4#&(!; (&&!)#%+F\$*+(>!345&! ? #+5)!5&!(857(\$+!H4(\$!;##C5\$A!*+!+4(!F\$5NF(!*&I(<+&!#)!
 +4(!OF<*\$!@#&I(;0!*&!+4(!)#; ;#H5\$A!(8(\$+&!*K#F+!+4(!7*\$A(%&!#)!(X<(&&!*(!\$#+)#F\$7!5\$!+4(!
 #+4(%!<*\$#\$5<*;!@#&I(;&,+4(!9*%*K;(!#)!+4(!G5<4!B##;!POFC(!E1,E]T1E0!+4(!9*%*K;(!#)!+4(!
 G5<4! - *\$!*\$7!O^*%F&!POFC(!E` ,E\T]E0!*\$7!+4(!&+## . !#)!k* <<4*(F&!POFC(!E\ ,ETE2Q>!34(&(!
 &+##5(&!#)!+4(!7(I;#% (? (\$+!#)!+4(!%5<4!H5; ;!K(!75&<F&&(7!*+!A% (*+(!; (\$A+4!)F%+4(%!5\$!+4(!&&* . >!!

!h+4.! - <G(. \$#;7&0!U34(!@#&I(;&!#)!OFC(!6!B%* ? (H#%C!)#%!*!34(#;#A. !#)! ' 5&*K5;5+ .0V!
 H' -&. ,&! *+@ (?/!,&#*+G#?- *!\$E]0!\$#>E!PDI%5\$A0!12E`Q,!Ec`>!
 +!LK57>0!Ec1>!
 !. !LK57>0!EcE>!
 !!DC5\$\$(%0!2+H#I " ! *&#*+, #, ')+8)9+7)., / I)*,A+Ec1>!

L\$!<#eF\$<+5#\$!H5+4!+4#&(!#)!*!;#H;. !&+*+F&0!+4(!A#&I(;!<#*5\$&!*\$!*KF\$7*\$<(!#)!

%)(%(\$<(!+#!5\$+(%*<+5#\$&!+4*+!#<<F%!K(+H((!&F&!*\$7!+4#&(!#)!+4(!)%5\$A(&!#)!&#<5(+.>)!=(&F&!

H5;;5\$A;. !? 5X(&!H5+4!+4(&(!I(#I;(0!*&!H(!*%(!+#!;7!+4*+!4(!5&!&((!\$!H5+4!+*X!<#;;(<+#!%&0!+4(!&5<C0!

@(\$+5;(&0!*\$7!#4(%!75&%(!F+*K;(!? (? K(%&!#)!&#<5(+.>!6;#A!H5+4!+4(&(!<# ? ? F\$5+5(&0!H# ? (\$!

<*\$!*;#&!K(!5\$<;F7(7!H5+4!+4#&(!H4#!4*7!*!;#H!&+*+F!5\$!&#<5(+.>!34(%(!5!&!I%(8*5;5\$A!K(;5)!

+4*+!+4(!8*\$A(;5&+!H%#+(!)#%!H# ? (\$0!*&!+4(. !I;* . (7!*!&5A\$5)5<*\$!%#;(!5\$!45&!A#&I(;>!R\$(!#)!

+4(! ? #&+!I%# ? 5\$(\$+!*&I(<+&!#)!+4(!A#&I(;!H*!&!+4(! ? (&*A(!+4*+!=(&F&!4*7!%5&(\$!)%# ? !+4(!7(*7!

345&! ? (&&(7>!)J98F0. 2(!H)502091705T(!5\$!45&!A#&!+4(;&

!

EE

POFC(!E2,]/T_1Q0!+4(!" (*,5\$A!#)!+4(! : %5II;(7! S # ? *\$!POFC(!E],E2TEcQ0!*\$7!+4(!9*%*K;(!#)!+4(!

S 57#H!*\$7!+4(!=F7A(!POFC(!E/,ET/Q>!

S 5+4!+4*+!K(5\$A!&*570!5+!5&!5 ? I(%*+58(!+#!*<C\$#H;(7A(!%(<(\$+!*78*\$< ? (\$+&!5\$!K5K;5<*;!</p></div>

&<4#; *%&45I!+4*+!4*8(\$#+*K;..!%(*&&(&&(7!+4(!

!

E]

*\$7!+4(!@(\$+5;(&!345&!5&!K(<*F&(0!U34(!*78(\$+!#)!=(&F&!* ? # \$A! I5#F&!=(H&0!H4#!#K&(%8(7!

\$<(&+%;!+%*75+5#\$&0!45A4;5A4+&!+4(!<#\$+5\$F5+ . !#)!=(&F&M!&+#% . !H5+4!+4(!45&+#% . !#)!L&%*(;!*\$7!

I%(&(\$+&!5+!*&!+4(!)F;)5;; ? (\$+!#)!45&!I(#I;(M&!4#I(&>V''!

3(? I;(!*\$7!H(%(!*!I%# ? 5\$(\$+!A#8(%\$5\$A!K#7 . !#8(%!=F7(*0!KF+!H(%(!&+5;;!&FK#%75\$*+(!+#!

G# ? *\$!%F;(>!6+!+4(!+5 ? (!#)!=(&F&M!+%5*;0!5+!H*!(& . !+#!&(!H4# ? !OFC(!85(H(7!*&!+4(!%F;5\$A!

F+4#%5+5(&0!&!4(! ? (\$+5#\$&!+4(!=(H5&4!*F+4#%5+5(&!P " 5A4!9%5(&+&Q0!9#\$+5F&!95;*+(!P@#8(%\$#!#)!

=F7(*Q0!*\$7! " (%#7!6\$+5I*!P@#8(%\$#!#)!@*;5;((Q>

&(I***(?! ? #%(!85&5K; .!)%# ? !+%*75+5#\$*;!=F7*5& ? !*\$7!K(<* ? (!*!A%#FI!5\$!+4(5%#!H\$!%5A4+>!34(!
? (? K(%&!#)!+45&!\$(H!75&+5\$<+!% (;5A5#F&!A%#FI!H(%(!I(%&(<F+(70!*&!+4(.!H(%(!#\$+5<(*K; .!
75))(%(\$!)%# ? !+%*75+5#\$*;!=(H&>!345&!=(&F&! ? #8(? (\$+0!;5C(!+%*75+5#\$*;!=(H5&4!A%#FI&0!4*7!*!
<#\$85<+5#\$!#)! ? #\$\$+4(5& ? 0!*\$7!&#!+4(. !<#F;7!\$#!* <<(I+!+4(!J ? I(%##!*&!+4(5%!A#7>!6&!*!%(&F;+!
#)!+45&0!G# ? (M&!\$## ? *+58(!* <<(I+*\$<(!#)!(%;5A5#F&!758(%&5+ . !H*&!\$#!A(\$(%*;; . !X+(\$7(7!+#!
=F7*5& ? !*\$7!+4(!=(&F&! ? #8(? (\$+0!K(<*F&(!+4(!+H#!A%#FI&!)#F\$7!K;5\$7!<#)\$#% ? 5+ . !+#!G# ? *\$!
L ? I(%5*;!57(*;&!*\$7!\$## ? &!F\$* <<(I+*K;(>!Y#+!* <<(I+5\$A!+4(!J ? I(%##!*&!*!A#70!)#%!(X* ? I;(0!
H*&!(((\$!*&!*!C5\$7!#)!K;*&I4(? .!*\$7!&#!H*&!<#\$&57(%(7!+#!K(!+%(*&#\$!*A*5\$&+!+4(!J ? I5%(>

!

E`

B5%&+0!+4(\$0!+4(!<#\$)(&&(7! ? (? K(%&!#)+4(!&(<+!H(% (!%%&(+7g!\$(X+0!#\$!+4(5%!
75&<;#&F%(&0!8*!&+!\$F ? K(%&!H(%(!<#\$85<+(70!\$#+!&#! ? F<4!#\$!+4(!<#F\$+!#)!*%&#\$!*&!)#%!
4*+% (7!#)+4(!4F ? *\$!%*<(>!6\$7!7(%5&5#\$!*<<# ? I*\$5(7!+4(5%!(7,!+4(.!H(%(!<#8(%(7!
H5+4!H5;7!K(*&+&M!&C5\$&!*\$7!+#!\$!+#!7(*+4!K. !7#A&g!#%+4(.!H(%(!)*&+(\$7!#\$!<#&&(&0!
\$70!H4(\$!7.;5A4+!)*5;(7!H(%(!KF%\$(7!+#!&(%8(!*!&!; * ? I&!K. !\$5A4+ j ! " (\$<(0!5\$!&I5+(!#)!
*!AF5;+!H45<4!4*7!(*%\$(7!+4(! ? #&+!(X(? I; *% . !IF\$5&4 ? (\$+0!+4(% (!*%#&(!*!&(\$+5 ? (\$+!#)!
I5+. 0!7F(!+#!+4(!5 ? I% (&&5#\$!+4*+!+4(.!H(%(!K(5\$A!&*<%5)5<(7!\$#+!)#%+4(!H(;)*%(!#)+4(!
&+*+(!KF+!+#!+4(!)%#<5+. !#)!*!&5\$A;(! ? *\$>")!

!

3* <+5F&M!#K&(%8*+5#\$&!(XI#&(7!+4(!F\$eF&+!I(%&(<F+5#\$&!+4*+!+4(!(*%;. !: 4%5&+5*\$&!)*<(7!

+4%#FA4#F+!+4(!;*A(!XI*\$&(!#)+4(!G# ? *\$!J ? I5(>!DF<4!*\$!*AA%(&&58(!%&I#\$&(!+#!

: 4%5&+5*\$5+. !;5C(;. !*<<#F\$+&!)#%!H4. !OFC(!H*!%#F&(7!+#!5\$<;F7(

!

E/

???! "#\$%&! !%0!@\$ \$' AA' .%2* '&*02!%& .!G)' H4 ' A%&!G)' 1% I%& .%!*&! - *02')D!%& .!?'&2/)1)/2%2*' &!

!
!

6>!=(&F&!+4(!L\$\$#<(\$+! - *%+. %!

6! ? *e#%!% (*&#\$!OFC(M&!@#&I(;!5&!+4#FA4+!+#!K(!*\$!! "#\$#%&!+#!+4(!G# ? *\$&!5&!K* &(7!#\$!

5\$+(%\$*;! (857(\$<(!5\$!45&!\$*%*+58(>!OFC(M&! "#\$#%&!<*\$0!)#%!+4(! ? #&+!I*%+0!K(!F\$7(%&+##7!F&5\$A!

)#F%175))(\$+!%FK%5<&!PEQ!+4(!I#%+%* . *;!#)!(&F&!* &!+4(!L\$\$#<(\$+! - *%+. %0!P1Q!OFC(M&! 6 \$+5T

=F7*5<! a5*&0!P]Q!+4(!I#%+%* . *;!#)!(&F&!* &!*\$! 6 I#;5+5<*;!O(*7(%0!*\$7!P_Q!OFC(M&!9%#TG# ? *\$!

9%#I*A*\$7*>!!

34(!)5%&+!%FK%5<!+4*+!H(!H5; ;!(X* ? 5\$(!5!OFC(M&!<4*%*<+(%5^*+5#\$!#)!(&F&!* &!*\$!

L\$\$#<(\$+! - *%+. %!34%#FA4#F+!45&!A#&I(;0!OFC(!7(? #&+%*+(&!+#!+4(!*F75(\$<(!+4*+!=(&F&!H* &!

5\$\$#<(\$+!#)+4(!<%5 ? (&!4(!H* &!*<<F&(7!#)!<# ? ? 5+5\$A!*\$7!&#!&4#F;7!\$#!+4*8(!K((\$!<%F<5)5(7>!

6)+(%! (*75\$A!+4(!@#&I(;!#)!OFC(0!+4(!G# ? *\$!*F75(\$<(!H#F;7!K(!;)+!H5+4!+4(!F\$7(%&+*\$75\$A!

+4*+!=(&F&!H* &

#\$;.!*%(!+4(%(!+H#!*%&(&+5#\$\$#!#)!5\$\$#<(\$<(!)%# ? !45A4;. !%(A*%7(7!G# ? *\$!*F+4#%5+*+58(!)5AF%(&0!
 +45&!5\$<57(\$+!5&!F\$5NF(!+#!OFC(M&!@#&I(;>!Y#H4(%(!5\$!+4(!A#&I(;&!#)! - *++4(H0! - *%C!#!=#4\$!
 7#!H(!H5+\$(&&!+45&!+5*%;K())#%(!" (%#7>!345&!(I5(!&+*\$7&!*&!*)F%+4(%!+(&+* ? (\$+!+#!OFC(M&!
 *I#;#A(+5<!*A(\$7*>!

34(!7(<;*%*+5#\$\$#!#)!5\$\$#<(\$<(!*%(!%(!;(\$+;(&&!5\$!+4(!OF<*\$!\$*%*+58(>!34(!8*\$A(;5&+!
 \$#+(&!+4*+!95;*+(! ? *5\$+*5\$&!=(&F&M!5\$\$#<(\$<(!+H#! ? #%(!+5 ? (&0!+#+*;5\$A!+4%((!7(<;*%*+5#\$\$!5\$!%;;>!
 S 4(\$!=(&F&5&!*+(!%&(\$+!K* <C!+#!95;*+(0!+4(!A#8(%\$#%!&+*(;&!UZ#F!K%#FA4+! ? (!+45&! ? *\$!*&!#\$(!
 H4#!H*%&!I(%8(%+5\$A!+4(!I(#I;(g!*\$7!4(%(!L!4*8(!X* ? 5\$(7!45 ? !5\$. #F%!I%(&(\$<(!*\$7!4*8(!#\$+!
)#F\$7!+45&! ? *\$!AF5;+. !#)!*\$\$. !#)! . #F%!<4*%A(&!*A*5\$&+!45 ? >!Y(5+4(%!4*%&! " (%#70!)#%!4(!&(\$+!45 ? !
 K* <C!+#!F&!L\$7((70!4(!4*%&!7#\$(\$!#+45\$A!+#!7(&(%8(!7(*+4!L!H5;;!+4(%)#%(!4*8(!45 ? !);#AA(7!
 \$7!%(!;(&(!45 ? V\$"!POFC(!1],E_TE`Q>95;*+(!%*)5 ? &! " (%#7M&8(%75<+0!*\$7!5\$!)5\$*;!*+(! ? I+!+#!
 * <NF5+!=(&F&!#)!+4(&(!* <<F&*+5#\$\$!4(!%(*&&(&+&!45&!I% (85#F&!5\$75\$A&!U S 4. 0!H4*+!(85;!4*%&!4(!
 7#\$(!L!4*8(!)#F\$7!5\$!45 ? !#\$!A%#F\$7!)#%!+4(!&(\$+(\$<(!#)!7(*+4g!L!H5;;!+4(%)#%(!4*8(!45 ? !
);#AA(7!*\$7!+4(\$!%(!;(*&(!45 ? V\$"!POFC(!1],11Q>34#FA4!45&!I#%+%* . *;!#)!95;*+(0!OFC(!5&!
 *\$. +45\$A!KF+!&FK+;(!H5+4!45&!*I#;#A(+5<!*A(\$7*>!34(!&. ? I*+4. !=(&F&5&!*H*%7(7!)%# ? !+4(!
 G# ? *\$!*F+4#%5+5(&0!*\$7!+4(!)*<+!+4*+!+4(. !<#F;7!\$#!)5\$7!*&5\$A;(!<%5 ? (!4(!4*7!<# ? ? 5++(70!
 H#F;7!4*8(!K((!5\$75<*+58(!+#!)5%&+T<(\$+F% . !G# ? *\$&!+4*+! : 4%5&+5*\$5+. !H*%&!\$#!*!+4%(*+!+#!+4(!
 G# ? *\$!5 ? I(%5*;!<F;+!6)+(%!+45&!+45%7!7(<;*%*+5#\$\$#!#)!5%%(I%#* <4*K5;5+. !)%# ? !95;*+(0!5+!<*\$!K(!

\$"!OFC(!1],E_TE`>!
 \$"!OFC(!1],11>!

&*57!H5+4!A% (*+!<#)\$57(\$<(!+4*+,!UB#%!OFC(0!+4(%(!\$(8(%!%(*;, . !H*!<!*5 ? 5\$*;+!%5*; >V\$#!

O5C(H5&(!H5+4!+4(!+5*;!K!)#%(!" (%#70!+4(!7(<;*%*+5#\$&! ? *7(!K. !95;*+(!*%(!F\$5NF(!+#!OFC(M&!

@#&I(;>!L\$!+4(!#+4(%!<*\$#\$5<*;!A#&I(;&0!95;*+(!7#(&!\$#+!7(<;*%(!=&F&!+#!K(!5\$\$#<(\$+!*\$7!5&!

I#%+*% . (7!*&!*)5AF%(!H4#!<F<5)5(7!=(&F&!*A*5\$&+!45&!K(++(%!eF7A(? (\$+!

OFC(!5\$)#% ? &!+4(!%(*7(!+4*+!95;*+(!<F<5)5(7!=(&F&!K(<*F&(!+4(!<#H7!I%(&(\$+!*+!+4(!

+%5*;!7(? *\$7(7!+4(!%(*&(!#)!a**%KK*&!5\$(X<4*\$A(!)#%+4(!*%(&+!#)!=(&F&>!a**%KK*&!H*&!5\$!

I%5&#)\$!#%!U5\$&F%(<+5#)!*\$7! ? F%7(%0V\$S!*\$7!OFC(! ? *C(&!+45&!*KF\$7*\$+; . !<(*%K. ! ? (\$+5#\$5\$A!

+45&!#)\$!+H#!&(I**%+(!#<<*5#\$&!POFC(!1 J,E\!*\$7!OFC(!1 J,1dQ>OFC(!*+(! ? I+&!+#! ? *C(!+4(!

75&+5\$<+5#)\$!K(+H(\$!+4(!5\$\$#<(\$+!=(&F&!*\$7!+4(!AF5;+ . !a**%KK*&!+#!F\$7(%&<#%(!+4(!5eF&+5<(&!

5 ? I#&(7!#\$!=(&F&>!34%#FA4!+4(!I%(&&F%(!)#% ? !+4(!<#H70!H45<4!95;*+(!F;+5 ? *+(; . !&F%(\$7(%&!

+#0!UOFC(! ? *C(&!5+!I(%)(<+; . !<(*%!H4(%(!+4(!%(*;!I#;+5<*;!5\$&F%A(\$+&!; . >V\$%R\$(!<*\$!5\$)(%!

+4*+0!H5+4#F+!+45&!I%(&&F%(!)#% ? !+4(!<#H7!#%+4(!)*;&(!<;*5 ? &!) *K%5<*+(7!)%# ? !+4(!5 ? *A5\$*+58(!

? 5\$7&!#)!+4(!=(H5&4!*F+4#%5+5(&0!5+!H#F;7!4*8(!K(((\$!45A4; . !F\$;5C(; . !+4*+!=(&F&!H#F;7!4*8(!

K(((\$!<F<5)5(7>!345&!7(? #S&+*%+(&!+4(!\$*+F%(!#)!=(&F&M! ? 5&&5#\$,!5+!H*!&!\$(5+4(%!I#;+5<*;; . !

? #+58*+(7!\$#%+4%(*+(\$5\$A!+#!+4(!I%(<*%5#F&!G# ? *\$!%(A5 ? (>!L\$!#%7(%!+#!(X#\$(*%+(!+4(!G# ? *\$!

F+4#%5+5(&!)#% ? !K; ? (0!#\$(!<*\$!F\$7(%&+*\$7!H4. !OFC(!H*&,!U>>&#C(\$!+#!I;*+(!+4(!H(5A4+#!)

+45&!<#S<;F&5#\$!#\$!+4(!&4#F;7(%&!#)!+4(!=(H5&4!;(*7(%&>V\$(!95;*+(!*5 ? (7!+#!<#S+5\$F(!+4(!I(*+(!

* ? #A!+4(!<5^(\$&!#)!G# ? (!*\$7!4*7!\$#!#4(%!H* . !#)!I;*+*+5\$A!+4(!*F<#F&!<#H7!*I**%+!)#% ? !

\$#! S *;*&C* . 0!W 2 *(+J#+ B)+H! 1)+,#+4# 1)OM!__>!

\$S!OFC(!1 J,1d>!

\$%

&(\$+(\$<5\$A!+4(!5\$\$#<(\$+!=(&F&!OFC(!7(? # \$&+*%*(&!+4(!* I#;#A(+5<!\$*+F%(!#)!45&!A#&I(;!K.!

(&F%5\$A!+4*+!95;*+(!FI4#;7&!=(&F&M!5\$\$#<(\$<(>!

S 4(\$!;##C5\$A!*+!5\$&+*\$<(&!#)!OF<*\$!! " # \$ % & ! 0 ! = (& F & M ! N F (& + 5 # \$! < # \$ < (% \$ 5 \$ A ! + 4 (!) * + (! #) !

+4(!5\$\$#<(\$+!5&!#)+(\$!*\$!#8(%;##C(7!I* &&*A(>!Y(8(%+4(;(&&0!+45&!&+*+(? (\$+!5&!5 ? I#%+*\$+!5\$!+4(!

I#%+*% . * ; ! #) ! 4 5 & ! 5 \$ \$ # < (\$ < (0 ! * & ! = (& F & ! ? (+ * I 4 # % 5 < * ; ; . ! ; * ? (\$ + & , ! U W 3 4 (\$! + 4 (. ! H 5 ; ; ! K (A 5 \$! + # ! & * . ! + # !

+4(! ? # F \$ + * 5 \$ & 0 ! W B * ; ; ! # \$! F & M g ! * \$ 7 ! + # ! + 4 (! 4 5 ; ; & 0 ! W : # 8 (% ! F & > M ! B # % ! 5) ! + 4 (. ! 7 # ! + 4 5 & ! H 4 (\$! + 4 (! H # # 7 ! 5 & !

A%((\$ 0 ! H 4 * + ! H 5 ; ; ! 4 * I I (\$! H 4 (\$! 5 + ! 5 & ! 7 % . o M V \$) ! = (& F & ! * & & (% + & ! 4 5 & ! # H \$! 5 \$ \$ # < (\$ < (! + 4 % # F A 4 ! + 4 (! 5 7 (* !

+4*+ , ! U 5) ! + 4 (! 5 \$ \$ # < (\$ + ! = (& F & ! ? ((+ & ! & F < 4 ! * !) * + (0 ! + 4 (\$! * ! H # % & (!) * + (! * H * 5 + & ! + 4 (! A F 5 ; + . ! = (% F & * ; (? > V \$ * !

" (% (0 ! O F C (! < % *) + 5 ; . ! ? * 5 \$ + * 5 \$ & ! = (& F & M ! 5 \$ \$ # < (\$ < (0 ! * & ! = (& F & ! 5 & ! 7 5 & + 5 \$ A F 5 & 4 5 \$ A ! 4 5 ? & (;) !) % # ? ! + 4 (!

A F 5 ; + . ! * \$ 7 ! ? # F % \$ & ! + 4 (! I % (< * % 5 # F & !) F + F % (! #) ! + 4 (! 5 \$ \$ # < (\$ + > !

3 4 % # F A 4 # F + ! + 4 (! < # F % & (! #) ! + 4 (! < % F < 5) 5 X 5 # \$! \$ * % % * + 5 8 (0 ! O F C (! 7 # (& ! \$ # + ! F \$ 7 (% & + * + (! 4 5 & !

< # \$ 8 5 < + 5 # \$! #) ! = (& F & M ! 5 \$ \$ # < (\$ < (> ! O F C (! (X I ; 5 < 5 + ; . ! H % 5 + (& ! + 4 * + ! = (& F & ! H * & ! < % F < 5) 5 (7 ! H 5 + 4 ! + H # ! # + 4 (% !

? (\$! H 4 # ! U H (% (! < % 5 ? 5 \$ * ; & 0 V \$ + ! H 4 5 < 4 ! & (% 8 (& ! + # ! 4 5 A 4 ; 5 A 4 + ! + 4 (!) * < + ! + 4 * + ! = (& F & ! H * & ! * # , ! * ! < % 5 ? 5 \$ * ; > !

)F%+4(%!(&+*K;5&4(&!45 ? &(;)*&!+4(!L\$#\$<(\$! - *%+. %!K.!*&C5\$A!@#7!+#!)#%A58(!45&!I(%&<F+#%&0!
 *&!4(!<;*5 ? &!+4*+!+4(. !*(!F\$*H*(!#)!+4(!<#\$&(NF(\$<(&!#)!+4(5!*<+5#\$&>°!6775+5#\$*;;.0!#\$(!#)!
 +4(!<%5 ? 5\$*;&!H4#!H*!&!<%F<5)5(7!*;#\$A&57(!=&F&0!(<4#(&!H4*+!95;*+(!*\$7!" (%#7!I%(85#F&;.!
 <#\$<;F7(70!*\$7!(X<;*5 ? &;!U6\$7!H(!5\$7((7!4*8(!K((!<#\$7(? \$(7!eF&+; .0)!#%!H(!*(!A(+5\$A!
 H4*+!H(!7(&(%8(!)#%!#F%17((7&0!KF+!+45&! ? *\$!4*!&!7#\$(!\$#+45\$A!H%#\$A>V°!34(!<%5 ? 5\$*;!4*7!
 \$#+45\$A!+#!A*5\$!)# ? !&* .5\$A!+45&!K(<*F&(!4(!H*!&!*;(%*7 .!K(5\$A!&(\$+(\$<(7!+#!7(*+4>!OFC(M&!
 5\$<;F&5#\$!#)!+45&!*\$F\$<(? (\$+7(? #F\$+*+(&!+4*+!+45&!<%5 ? 5\$*;!)(!&#&!&+#\$A; .!*K#F+!(&F&M!
 H%#\$A)F;17(*+4!&(\$+(\$<(!+4*+!4(!7((? (7!5+!\$(<&&*% . !+#!&I(\$7!45&!;*&+!)(H!K%(*+4!+*(? I+5\$A!
 +#!<;(*%!=(&F&M!\$* ? (>!345&!8*;5*\$+!*\$F\$<(? (\$+!<#\$+*+&+&!(&F&M!5\$\$#<(\$<(!H5+4!+4(!
 <%5 ? 5\$*;M&!AF5;+g!<#\$&(NF(\$+; .0!+4(!%(*7(%!#)!+4(!!"#%#%&!H#F;7!K(!*K;(!+#!75&<(%\$!(&F&!*&!*\$!
 F\$+4%(*+(\$5\$A!<4*%*<(>!!

RS(!#)!OFC(M&!5\$*;*+((? I+&!+#!7(I5<+!(&F&!*&!+4(!L\$#\$<(\$! - *%+. %!<*\$!K(!)#F\$7!
 75%(<+; .!*)+(!+4(!7(*+4!#)!(&F&! S 4(\$!(&F&!8(\$+F*;;. !75(7!#)\$!+4(!<%#&&0! . (+!*\$#+4(%!G# ? *\$!
 F+4#%5++58(!)5AF%(! ? *C(&!*\$!*&(&+5#\$!#)!45&!5\$\$#<(\$<(>!345&!5AF%(!H*!#\$(!#)!+4(!G# ? *\$!
 <(\$+F%5#\$!H4#!H*!&!I%(&(\$+!*+!+4(!<%F<5)5X5#\$0!*\$7!4(!&+*(7;!U : (%+*5\$; .!+45&! ? *\$!H*!&!
 5\$\$#<(\$+>V°" !345&!<(\$+F%5#\$0!;5C(!+4(!<%5 ? 5\$*;!<%F<5)5(7!*;#\$A&57(!=&F&0!4*7!\$#+45\$A!+#!A*5\$!
 K . ! ? *C5\$A!&F<4!*!7*%5\$A!7(<;*%+5#\$!#)!(&F&M!5\$\$#<(\$<(>!34(!<(\$+F%5#\$!&*H!+4(!I(%8(%&(\$&&!
 5\$!(&F&M!<%F<5)5X5#\$!*\$7!&#!I#C(!#F+!*A*5\$&+!45&!&FI(%5#%&!+#!*)5% ? !(&F&M!5\$\$#<(\$<(>!OFC(!

%·!OFC(!1],]_>!
 %!OFC(!1], _E>!
 %"

5\$<;F7(&!+45&!I%#<;* ? *+5#\$!5\$!45&!A#&I(;!5\$!#%7(!+#!7(? #&+*+(!+#!+4(!G# ? *\$!*F+4#%5+5(&!+4*+!

(8(\$!#\$(!* ? #SA!+4(5%!%\$C&!H*!&!H5+\$(&!+#!=(&F&M!5\$\$#<(\$<(>!345&!H#F;7!4*8(!K(((\$!

%(*&F%5\$A!+#!+4(!G# ? *\$&0!*&!5+!H#F;7!)F%+4(%!&#;575) . !5\$!+4(5%! ? 5\$7&!+4*+!(*%; . ! : 4%5&+5*\$5+. !

H*!&#\$+!*!+4% (*+(\$5\$A!I%(&(\$<(!+#!+4(!G# ? *\$!L ? I(%5*;! : F;+!

!

a>!OFC(M&! 6 \$+5T=F7*5<! a5*&!

a . !(X* ? 5\$5\$A!OFC(M&!<4*%*<+(%5^*+5#\$!#)=(&F&!*&!+4(!L\$\$#<(\$+! - *%+ . %0!#\$(!<*\$!

<# ?)#%+*K; . !*+(&!+#!+4(!I(%8*&58(\$(&!#)!+4(!OF<*\$!*I#;#A(+5<!*A(\$7*!H5+45\$!+4(!@#&I(;#)!

OFC(>!34(!+5*;*!\$7!<%F<5)5X5#\$!\$*%*+58(&!*(!5 ? I(%*+58(!5\$!<#8(. 5\$A!+4(!&(\$+5 ? (\$+!+4*+!

: 4%5&+5*\$5+. !H*!&#\$+!*!+4% (*+#!+4(!I#;5+5<*;!&+*K5;5+. !#)!+4(!G# ? *\$!J ? I5%(>!34(!&(<#\$7!%FK%5<!

+4*+!\$((7&!#K(!X* ? 5\$(7!5&!OFC(M&! 6 \$+5T=F7*5<!K5*&!

K(4*85#%!#)!+4(!G# ? *\$!*F+4#%5+5(&>!

OFC(M&!6\$+5T=F7*5<!K5*&!+#H*%7&!+4(!=(H5&4!*F+4#%5+5(&!5&!%(5\$)#%<(7!5\$!OFC(!E` ,E_T

Ed,!U34(!94*%5&((&!H4#!H(%(!;#8(%&!#)!?#\$(.0!4(*%7!*;;!+45&0!*\$7!+4(.!%575<F;(7!45?>!D#!4(!

&*57!+#!+4(?0!WZ#F!*%(!+4#&(!H4#!eF&+5).!.#F%&(;8(&!5\$!+4(!&5A4+!#)!#4(%&g!KF+!@#7!C\$#H&!

.#F%!4(*%+&g!)#%!H4*+!5&!I%5^(7!K. !4F?*\$!K(5\$A&!5&!*\$!*K#?5\$*+5#!5\$!+4(!&5A4+!#)!@#7>M\

34(!<;5 ? *X!#)!+4(!OF<*!#I#;#A(+5<!A(\$7!*A*5\$&+!+4(!=(H5&4!*F+4#%5+5(&!5&!)#F\$7!5\$!

+4(!<45!)!I%5(&+&M!*+(? I+&!+#!I%# ? I+!=(&F&!+#!K;*&I4(? (!*A*5\$&+! : *(&*%#!#8(%!*!NF(&+5#\$!*K#F+!

+4(!I* . ? (\$+!#)!+*X(&!POFC(!12,12T1dQ>%)!3#H*%7!+4(!(\$7!#)!OFC(M&!@#&I(;0!(I%(&(\$+*+58(&!#)!

+4(!=(H5&4!*F+4#%5+5(&!H(%(!&(\$+!#F+!5\$!#%7(%!+#!+%. !*\$7!I%#8#C(!=(&F&!+#!<# ? ? 5+!*\$!*%(%&+*K;(!

#))(\$<(>!R\$(!#)!+4(! ? (\$!*&C(7!=(&F&!5)!4(!+4#FA4+!4(!&4#F;7!I* . !+*X(&!+#! : *(&*%0!*&!4(!*&C&0!

UL&!5+!;*H)F;!)#%F&!+#!I* . !+*X(&!+#!+4(! ? I(%#%0!#%!\$#+oV%*!POFC(!12,11Q>!345&!H#F;7!4*8(!

K((\$!*\$!*HCH*%7!*\$7!75))5<F;+!&5+F*+5#\$!)#%!=(&F&>!34(!I* . ? (\$+!#)!+*X(&!H*!&!# ? (+45\$A!+4*+!*!

I(%&#\$!7570!*\$7!+4#FA4!+45&!*+0!+4(. !5\$75%(<+; . !H#%&45II(7!+4(! ? I(%#%!*&!*\$!57#;>!34(!

=(H5&4!@#7!)#%K*7(!+4(!H#%&45II5\$A!#)!57#;&>!34(! ? #&+!) * ? #F&!(X* ? I;(!#)!+45&!#<<F%%(7!5\$!

JX#7F&!] 1,ET]d>+!L\$!JX#7F&0!H#%&45II5\$A!*\$!57#;!H*!&!<#\$&57(%(7!+#!K(!*!UA(%*+!&5\$V< . !

PJX#7F&!] 1,]2Q0!*\$7!&#!+5&!(*& . !+#!F\$7(%&+*\$7!H4 . !+45&!NF(&+5#\$!#8(%!+*X(&!H*!&!\$#!*\$(* & . !

#\$(!)#%!=(&F&!+#!*\$&H(%>!L)!=(&F&!*\$&H(%(7!UY#V!+#!+45&!NF(&+5#\$0!+4(\$!4(!H#F;7!K(!*<<F&(7!#)!

% (K(;;5\$A!*A*5\$&+!G# ? (0!KF+!5)!4(!&*57!UZ(&V!+#!+45&!NF(&+5#\$0!4(!H#F;7!K(!*<C\$#H;(7A5\$A!

: *(&*%!*&!+4(!F;+5 ? *+(!A#8(%\$5\$A!*F+4#%5+ . 0!*\$7!&#!75&%(&I(<+!@#7>! : #F&(NF(\$+; . 0!=(&F&!4*7!

+#!7(85&(!*!%(&I#\$&(!5\$!H45<4!4(!H#F;7!K(!\$(5+4(%!75&%(&I(<+)F;+#!@#70!\$#%!+%(* & # \$ # F & !

*A*5\$&+!+4(!&+*+(>!=(&F&!757!eF&+!+45&0!*\$7!(I;5(7!H5+4!+4(!)#;;#H5\$A!*\$&H(%;!U

7(\$*%5F&>! S 4#&(!4(*7!*\$7!H4#&(!+5+;(!7#(&!5+!K(*%oV!34(. !&*570!U34(! (? I(<%#%M&>V! " (!&*57!+#!

+4(? 0!W34(\$!A58(!+#!+4(! (? I(%#%!+4(!+45\$A&!+4*+!*%(!+4(! (? I(%#%M&0!*\$7!+#!@#7!+4(!+45\$A&!+4*+!

*%(!@#7M&V^!POFC(!12,1_T

:>!(&F&!+4(!6 I#;5+5<*;! - (&&5*4!

34(!+45%7!%FK%5<!+4*+!OFC(!F&(!+#!I#%+%* . !=(&F&!*&!*\$!*<<# ? ? #7*+5#\$5&+!+#!G# ? *\$!

5 ? I(%5*;!I#H(%!&FAA(&+&!+4*+!=(&F&!H*!&!*! - (&&5*4!H4#!H*!&!\$#!I#;5+5<*;; . ! ? #+58*+(7>!OFC(!

H*\$+(7!45&!A#&I(;!+#!I%(&(\$+!=(&F&!*&!*!)5AF%(!H4#!&#;(; . !*5 ? (7!+#!;(*7*!I(*<())F;! ? 5\$5&+% .>!

34(!=(H&K(;5(8(7!+4(5%! - (&&5*4!H#F;7!K(!*!I#;5+5<*;!5AF%(!H4#!H#F;7!)%((!+4(?!)%# ? !

&F))(%5\$A0!K(;5(8(7*!I#;5+5<*;! - (&&5*\$5<!)5AF%(!H#F;7!7())(*+!+4(!#II%(&&58(!*F+4#%5+*+58(!

G# ? *\$!(A5 ? (>!34(!G# ? *\$!*F+4#%5+5(&!H#F;7!4*8(!K((\$!*H*%(!#)!+45&0!*\$7!I(%<(58(7!+4(!

=F7*5<! - (&&5*4!+#!K(!*!+4%(*+!+#!+4(5%!(5A\$>L+!H*!&!5 ? I(%*+58(!)#!OFC(!+#!%(* . !+4(! ? (&&*A(!

+4*+!=(&F&!H*!&!\$#!*!I#;5+5<*;! - (&&5*\$5<!)5AF%(>!OFC(M&!9%)*<(!&(+&!+4(!+#!\$(!)#%!+45&!

I#;5+5<*;; . T5\$\$#<F#F&!*A(\$7*!*+!+4(!#F+&(+!POFC(!E,ET_Q>!L\$!OFC(M&!I%(;5 ? 5\$*\$% . !<# ? ? (\$+&!+#!

34(#I45;F&0!4(!&+*+(&!+4*+!45&!IF I#&(!5&!+#!I%#857(!34(#I45;F&!H5+4!*\$!*<<F%*+(!*\$7!

<4%#\$\$;#A5<*;!*<<#F\$+!<#<(%\$5\$A!+4(!;5)(!*\$7!7(*+4!#)!=(&F&>(" : # \$ ^ (; ? * \$ \$! H % 5 + (& , ! U L) ! H (!

<*\$!*C(!5+!+4*+!34(#I45;F&!H*!&!*!@(\$+5;(0!+4(\$!H(!<*\$!&((>>>!m+4(!*I#;#A(+5<!IF I#&(n!5\$!+4(!

I%)*<(>V(#!BF%+4(% ? #%(0!+45&!9%)*<(!;*<C&!*\$. !5\$75<*+5#\$!+4*+!OFC(!H*!&!&(<(+; . !H%5+5\$A!45&!

A#&I(;!5\$!#%7(%!+#!<#8(%+!I(#I;(>!34(%())#%(0!5\$!OFC(M&!85(H0!(*% ; . ! : 4%5&+5*\$5+ . !<#F;7!\$#+!

("!OFC(!E,]>!34(!;5+(*+F%(!%A*%75\$A!=(H5&4! - (&&5*\$5<!JXI(<+*+5#\$&!5&! (X+(\$&58(>!D((!=#4\$!>!) : # ; ; 5\$&0!7 ') + 2 " # / ! \$ C " , & / + I I ! % & * ! , & # * > + 2 * + I * , - # (? / , & # * + , # + G) 9 & . ' + 2 " # / ! \$ C " , & / + N & ,) - ! , ? -) + P @ % * \$ 7 ! G * I 5 7 & 0 ! - L , ! S 5 ; ; 5 * ? ! a > ! J % 7 ? * \$ & 0 ! 1 2 E ` Q g ! D 4 * . (! => ' > ! : # 4 (\$ 0 ! 7 ') + <) % & * * & * % . + # 3 + G) 9 & . ' *) . . 5 + < # ? * (! - &) . A + \ ! - & ! - % \$ 5 B . > . 2 (! -) - 0 . 2 0 !) - # (Q . 2 (% \$ 5) \$ B T 5 0 0) \$! (')) 0 9 5 J E T Q q 7 5 7 8 (#) 0 . 2 (5

\$7!#\$!+4(!+45%7!7 . !K(!%*5&(7V(*!POFC(!\,11T1]Q>!=(&F&M!<;*5 ? !H* &!H5;7; . !I%#8#<*+58(!H4(\$!
+*C(\$!5\$!<#\$+(X+!H5+4!+4(!F\$(*& . !I#;5+5<*;! ? 5;5(F!#)!=F7(*!*\$7!@*;*5;((>!OFC(!<*%()F;; . !
<#&+%F<+&!+45&!5\$+(%*<+5# \$!*\$7!75&I;* . &!=(&F&!*&!&# ? (H4*+!#)!*!<;*\$7(&+5\$(! - (&&5*4g!=(&F&!
F\$7(%&+*\$7&!+4(!5 ? I;5<*+5# \$&!K(45\$7!<#\$)5% ? 5\$A!45 ? &(;)!+#!K(!+4(! - (&&5*40!*\$7!&#!7#(&!\$#+!
H*\$+!45&!75&<5I;(&!+#!<5%<F;*+(!+45&!(H&!OFC(!#+(&!+4*+!(8(\$!+4#FA4!=(&F&!H*\$+&!+#!C((I!45&!
+5;(!*!&(<%(+0!4(!H#F;7!\$#+!K(!+4(!+ . I(!#)!I#;5+5<*;! - (&&5*4!+4*+!I(#I;(!XI(<+(7>!OFC(!
5\$)#% ? &!+4(!%(*7(!+4*+!=(&F&!5&!*H*(#!)45&!)F+F%(!e(<+5# \$!*\$7!&F))(%5\$A0!*\$7!+45&!*H*(%(\$&&!
7#(&!\$#+!A58(!+4(!5 ? I%(&&5# \$!+4*+!=(&F&!H* &!+#!C5<C&+*%+!*\$!FI%5&5\$A!#)!I#;5+5<*;!5\$&F%A(\$< . >!
L&+(*70!=(&F&M!I%(75<+5# \$!*;* ? #&+!&4#H&!45 ? !5\$!*!\$(A*+58(!;5A4+0!*&!K(5\$A!*!H(*C! - (&&5*4>! !
OFC(M&!<#\$&<5#F&!&(I*%*+5# \$!#)!=(&F&!)# ? !I#;5+5<&!5&!I%(&(\$+(7!+4%#FA4!+4(!
<4*%*<+(%5^*+5# \$!#)!K#;4!=(&F&M! ? 5&&5# \$!*\$7!F\$H*8(%5\$A! ? (&&*A(!#)!K(\$8#;(\$<(>!OFC(!

#%!*&!)#%A585\$A!*&!4(!H*!&!H5+4!45&!I(%&(<F+#%&!34%#FA4#F+!+4(!A#&I(;0!OFC(!I%#;5)5<*;;..!

<4%#5<;(&!=(&F&M!)#%A585\$A!*\$7!<# ? I*!&&5#\$*+(!\$*+F%(>!345&!H#F;7!4*8(!&5A\$*; (7!+#!+4(!

G# ? *\$!#))5<5*;&!+4*+!+4(!=(&F&! ? #8(? (\$+!H#F;7!I#&&(&&!+4(&!&* ? (!)(*+F%(&!34(%)#% (0!+4(!

? #8(? (\$+!H#F;7!\$#+!\$((7!+#!K(!I(%<(58(7!*&!*!I#;5+5<*;!+4% (*+>!

R\$(!#)!+4(!)5\$*;!*\$7! ? #&+!5 ? I#%+*\$+!5\$&+*\$<(&!#)!+4(!K(\$8#;(\$+!*\$7!*I#;5+5<*;!\$*+F%(!

#)!=(&F&!5&!)#F\$7!*+!+4(!(\$7!#)!OFC(M&!@#&I(;>! " (% (0!OFC(!5\$)#% ? &!+4(! (*7(%!*K#F+!=(&F&M!

&FK&(NF(\$+!*II(*%*\$<(&!*)+(!45&!7(*+4!*\$7!H%5+(&!5\$!OFC(!1_ _c,!U j % (I(\$+*\$<(!*\$7!

)#%A58(\$(&&!#)!&5\$&!5&!+#!K(!I%#<;*5 ? (7!5\$!45&!\$* ? (!+#!*;;!\$*+5#\$& j V)·!345&!5\$*;!(8(\$+!5&!#\$(!

+4*+!4(*85; .!(? I4*!&5^(&!e# . !*\$7!)#%A58(\$(&&! : ; (*%; . 0!=(&F&!757!\$#+!%5&(!)%# ? !+4(!7(*7!+#!<*% . !

#F+!% (+%5KF+5#\$!#%!(8(\$A(!+H*%7&!45&!#II% (&&#%&)&R\$!+4(!<#\$+%*% . 0!+4(!%5&(\$!=(&F&!% (8(*;&!+4*+!

I(\$5+(\$+!&5\$\$(%&! ? F&+!K(!)#%A58(\$!*\$7!+4*+!@#7M&!5\$<;F&58(! ? (&&*A(!#)!&*;8*+5#\$!5&!H(;<# ? (!

+#!*\$. #\$(!H4#!5&!H5;;5\$A!+#!(*%\$!5+>!34(!(\$75\$A!#)!+4(!A#&I(;!H#F;7!4*8(!&#;575)5(7!5\$!+4(!

G# ? *\$!*F+4#%5+5(&M! ? 5\$7&!+4(!<#\$85<+5#\$!+4*+!+4(% (!H*!&\$#!I;*F&5K;(!H* . !+4*+!=(&F&!<#F;7!

4*8(!K((!\$!*I#;5+5<*;!+4% (*+0!K(<*F&(!45&! ? 5\$5&+% . !(? I4*!&5^(!*\$7!(X45K5+(7!+4(!5 ? I#%+*\$<(!#)!

I(*<(>!OFC(!(\$&F%(&!+4*+!45&!A#&I(;!H#F;7!A58(!+4(!G# ? *\$!*F+4#%5+5(&!\$#!% (*&#\$!+#!K(;5(8(!

+4*+!=(&F&M! ? #8(? (\$+!H*!&A#5\$A!+#!#8(%+4#H!+4(!G# ? *\$!% (A5 ? (>!

'>!(&F&M! - 5\$5&+% . !*\$7!9%#TG# ? *\$!9%#I*A*\$7*!

OFC(M&!*I#;#A(+5<!*A(\$7*!5&!)F%+4(%(7!5\$!45&!I#&5+58(!I#%+* . *;!#)+4(!G# ? *\$!5 ? I(%5*;!)

F+4#%5++58(!)5AF% (&>!345&!7%*&+5<*;;. !<#%\$+%* &+&!H5+4!45&! 6 \$+5T=F7*5<!K5* &!K(<*F&(!+4(!=(H5&4!

*F+4#%5+5(&!)*5;!+#!%(7((? !+4(? &(;8(&0!H4(%(*&!+4(!G# ? *\$!*F+4#%5+5(&!5\$!OFC(M&!@#&I(!;!(5+4(%!

%(<#A\$5^(!+4(5% !&+*+F&!*&!&5\$\$(%&0!#%!*%(!A58(\$!+4(!#II#%+F\$5+ . !+#!*+#\$(!)#%!+4(5% !&5\$&! a . !

(X* ? 5\$5\$A!PEQ!+4(!9%#<,* ? *+5#\$!#)!=#4\$!+4(!a*I+5&+0!P1Q!+4(!: (\$+F%5#\$M&!D(%8*\$+0!P]Q!+4(!

9**%K;(!#)+4(!94**%5&(!*\$7!+4(!3*X! : #;(<+##0!*\$7!P_Q!=(&F&M!5\$+(%*<+5#\$!H5+4!k* <<4*(F&0!H(!

H5;;!(XI#&(!+4(!OF<*\$!! "#\$%&! !85*!45&!I#&5+58(!I#%+* . *;!#)+4(!G# ? *\$!*F+4#%5+5(&>!

R\$(!#)!+4(!(*% ;5(&+!(X* ? I;(&!#)!+4(!345%7!J8*\$A(;5&+M&!I#&5+58(!X45K5+5#\$!#)!+4(!

G# ? *\$!*F+4#%5+5(&M!5 ? *A(!<*\$!K(!)#F\$7!5\$!OFC(M&!7(&<%5I+5#\$!#)!+4(!9%#<,* ? *+5#\$!#)!=#4\$!+4(!

a*I+5&+>! S 4(\$!=#4\$!5&!&((!\$!I%(*<45\$A0!I(#I;(!*&C!45 ? !4#H!+4(. !<*\$!(I(\$+)#%!+4(5% !&5\$&!5\$!

#%7(%!+#!%(*<4!&*;8*+5#\$)!OFC(!<(*% ;. !H%5+(&!K#F+!4#H!(8(\$!+4(! ? #&+!4*+(7!#)!I(#I;(!5\$!

G# ? *\$!5 ? I(%5*;!&#<5(+ . !4*8(!+4(!*K5;5+ . !+#!%(*<4!&*;8*+5#\$0!*\$7!+4(&(!5\$<;F7(!+4(!#))5<5*;!+*X!

<#;(<+##&!H4#!H##C(7!#\$!K(4*;)#)!G# ? (0!*\$7!+4(!G# ? *\$!

I#%+%.&!+4(? !5\$!*!\$(A*+58(!;5A4+0!(&I(<5*;;. !5\$!45&!5;;F&+%*+5#\$!#)!+4(!7(*+4!#)!=(&F&>!B#%!

(X* ? I;(0!=#4\$!H%#+(!5\$!E\,1,!U 6\$7!+4(!&#;75(%&!H#8(!*!<%#H\$!#)!+4#%\$&!*\$7!IF+!5!#\$!45&!

4(*70!*\$7!+4(.!7%(&&(7!45 ? !5\$!*!IF%I;(!%#K(>V)"!L\$!=#4\$M&!@#&I(;0!+4(!G# ? *\$!&#;75(%&!*(!((\$!

&&5&+5\$A!5\$!+4(!I%#<(&&!#)!=(&F&M!7(+4!L\$!OFC(M&!@#&I(;0!+4(!G# ? *\$!&#;75(%&!I%(&(\$+!7F%5\$A!

+4(!<%F<5)5X5#\$!#)!=(&F&!*(!*;&#!&((\$! ? #<C5\$A)=(&F&g!4#H(8%!+4(!5\$+(\$&5+. !#)!+4(! ? #<C(% . !5&!

;(&&!85%F;(\$+!+4*\$!5\$!=#4\$M&!@#&I(;>!OFC(!*<C\$#H;(7A(&!+4*+!+4(!&#;75(%&! ? #<C(7!=(&F&!KF+!4(!

7#(&!\$#!+5\$<;F7(!+4(!<%#H\$!#)!+4#%\$&!*\$7!7#(&!\$#!+H%5+(!*K#F+!+4(!&#;75(%&!5\$!+4(!&* ? (!

&<*+45\$A! ? *\$\$(%!+4*+!=#4\$!7#(&>!R\$(!<*\$!<#\$+%*&+!=#4\$M&!I#%+%%* . *;!#)!+4(!G# ? *\$!&#;75(%&!H5+4!

+4*+!#)!OFC(M&

L\$&+(*70!+4(!J8*\$A(;5&+!*II(*%&!+#!&+%(&&!+4(!5 ? I#%+*\$<(!#)\$!)!+4(!G# ? *\$!<(\$+F%5#\$M&!#))5<5*;! -!*E>OFC(!UI%(&(\$+(7!+4(!<(\$+F%5#\$!*&!+4(!)5\$(&+!(X* ? I;(!#)!G# ? *\$! ? 5;5+*% .!I(%&#\$\$(;V)%! *\$7!5\$)#% ? &!45&!*F75(\$<(!+4*+!4(!H*!&! ? #%*;!*\$7!FI&+*\$75\$A!*F+4#%5+*+58(!)5AF%(>!OFC(! &+%(&&(&!+4(!)*<+!+4*+!+4(!<(\$+F%5#\$0!U8*;F(7!m45&!&;*8(n!45A4; .0V) (!*\$7!+45&!5&! ? *7(!<;(*%!7F(!+#! +4(!X+(\$+!#)!+4(!<#\$<(%\$!4(!&4#H!#8(%!45&!&5<C!&(%8*\$>!345&!57(*!#)!*!4F ? K;(!G# ? *\$! <(\$+F%5#\$!H#F;7!4*8(!K((!&F%I%5&5\$A!+#!*!)5%&+T<(\$+F% .!*F75(\$<(!K(<*F&!5+!H*!&!F\$F&F*;!)#%!*!

345&!+4(? (!#)!) *8#%5\$A!+4(!G# ? *\$!*F+4#%5+5(&!5&!<#\$+5\$F(7!H5+4!+4(!9**%*K;(!#)!+4(!

94**%5&(!*\$7!+4(!3*X! : #;;(<+#!POFC(!E/ ,E2TEdQ>)*3*X!<#;;(<+#!&!H(%(! (? I;#. (7!K.! : *(&*%!

*\$7!H(%(!7((? (7!K.! ? *\$. !+#!K(!*!K#+4(%&# ? (!<#A!5\$!+4(!G# ? *\$!(A5 ? (>!34(. !H(%(!*;&#!

U\$#+#%5#F&; .!4*+(7V)+!

!

] /

=(&F&!+#!+*C(!I5+. !#\$!45 ? >!OFC(!H%5+(&!5\$!E\,/TE2!+4*+!k*<<4*(F&!&*57!+#!+4(!O#%70!UO##C0!4*;)!

+4(!A#&I(;!(? I;#.&!*!<;(*%!*I#;#A(+5<!*A(\$7*0!OFC(!4*7!#;4(%! ? #+58*+5#\$&!)#%!H%5+5\$A!45&!

A#&I(;>!34(!)#;;#H5\$A!&(<+5#\$&!H5;;!%(8(*;+4(!<#\$<(I+!#)!+4(!U4577(\$!+%*\$&<%5I+0V!*\$7!4#H!

OFC(!H%#+(!45&! !"#\$\$%&! !5\$!<#eF\$<+5#\$!H5+4!*!I#;5+5<&!#)!U4577(\$!75&&(\$+V!*\$7!%(&5&+*\$<(!

+#H*%7&!+4(!G# ? *\$!%(A5 ? (>!

!

? J<! - * . . / &! () % & 0 \$) * 1 2 0 3 ! 4 / 0 * 0 2 % & \$ / 3 ! % & . ! ? . / ' + ' I * \$ % + ! K * 0 0 / & 2 ! * & ! 7 ' \$ * ' + ' I * \$ % + !
 G /) 0 1 / \$ 2 * 8 / , ! = % A / 0 ! > < ! 7 \$ ' 2 2 L 0 ! ! % & . !
 C * M + * \$ % + ! 7 \$ 6 ' + %) 0 6 * 1 !

!

6 > ! 3 4 (! D 5 A \$ 5) 5 < * \$ < (! #) ! = * ? (& ! : > ! D < # + + M & ! S # % C !) # % ! a 5 K ; 5 < * ; ! D < 4 # ; * % & 4 5 I !

= * ? (& ! : > ! D < # + + M & ! K # # C 0 ! 0 # I & * ! , & # * : ! * (+ , ') + 2 - , . + # 3 + 4) . & . , / * /) 5 + 6 & (() * + 7 - ! * . / - & " , . 0 * " !

4 * & ! 4 * 7 ! 4 F A (! 5 ? I ; 5 < * + 5 # \$ & !) # % ! a 5 K ; 5 < * ; ! & < 4 # ; * % & 4 5 I > ! L + ! 4 * & ! % (5 ? * A 5 \$ (7 ! + 4 (! H * . ! 5 \$! H 4 5 < 4 !

& < 4 # ; * % & ! * I I % # * < 4 ! + (X + & ! & F < 4 ! * & ! + 4 (! Y (H ! 3 (& + * ? (\$ + ! L \$! + 4 (! I * & + 0 ! a 5 K ; 5 < * ; ! & + F 7 5 (& ! 4 * & , ! U + (\$ 7 (7 !

+ # ! 5 A \$ # % (! I # H (% ! % (; * + 5 # \$ & ! 5 \$! + (X + & ! * \$ 7 ! 4 5 & + # % . > V * # ! L \$! 4 5 & ! % (& I # \$ & (! + # ! D < # + + M & ! 5 \$ 8 * ; F * K ; (! K # # C 0 !

G 5 < 4 * % 7 ! 6 > ! " # % & ; (. ! # K & (% 8 (& ! + 4 (!) # ; ; # H 5 \$ A ,

!

_1

G# ? *\$!(A5 ? (>!

!

_d

:4%5&+5*\$&!H(%(!85(H(7!H5+4!&

!

—

<F;+

R\$(! ? F&+!*;&#!*<C\$#H;(7A(!+4(!&+%*+(A5(&!#)!U*78*\$<5\$A!F\$*\$5 ? 5+ . V!+4(!IFK;5<!
 +%*\$&<%5I+!&((C&!+#!<%(*+(!*!&(\$&(!#)!&#<5*;<#4(&5#\$)!D<#+!#K&(%8(&0!U>>5+!H#F;7!&((? !+4*+!
 ? #&+!%F;5\$A!A%#FI&!+*C(!A%(*+!I*5\$&!+#!)#&+(!*!IFK;5<!5 ? *A(!#)!<#4(&5#\$!*\$7!&4*%(7!K(;5!)>V++!
 345!5&!I%(<5&(; . !H4*+!OFC(M&!4577(\$!+%*\$&<%5I+!*<45(8(&!+4(!#F+&57(!*II(*%*\$<(!#)!*K&#;F+(!
 \$7!+#+;&FK#%75\$*+5#\$!+#!+4(!%F;5\$A!<*&&!+4%#FA4!+4(!*I#;#A(+5<!*K&(\$<(!#)!%(&5&+*\$<(>!34(!
 A#&I(;!\$*%*+58(!*II(*%&!+#!K(!5\$!)*8#!#)!G# ? *\$!*F+4#%5+ . !5\$!+4(!<#\$&+%F<+5#\$!#)!OFC(M&!

75&&#<5*+(&!45 ? &(;))%# ? !+4(!#))(\$&(!*\$7!(*))5% ? &!+4(!%F;(!5\$!NF(&+5#\$>V! · !L\$!#%7(%!+#!
5;;F&+*%+(!45&! I#5\$+0!D<#++! I%#857(&!*\$!(X* ? I;(!)%# ? !=#&(I4!D+*;5\$M&!# I I% (&&58(!% (A5 ? (> [\$7(%!
D+*;5\$M&!75<+*+##%&45I,!U ' #<+%5\$*;!F\$*\$5 ? 5+ . !H* &!&#!45A4; . !8*;F(7!5+!H* &!\$#+!(\$#FA4!)#% !+4(!
I*%+ . !+#!<%F&4!75&&(\$+g!+4(!85<+5 ? &!4*7!+#! ? *C(!*!IFK;5<!75&I;* . !#)!+4(5%!*<<(I+*\$<(!#)!+4(!
I*%+ . M&leF7A(? (\$+>!34#&(!H4#!H(%(!F\$H5;;5\$A!+#! ? *C(!*\$!#I(\$!<#\$) (&&5#\$0!+4(%K . !%(I*5%5\$A!
+4(!& . ? K#;5<!) *K%5<!K()#%(!&(\$+(\$<5\$A0!&5 ? I; . !75&* I I (*%(7>V! · "L+!5&!<;(*% !+#!&(!+4*+! ? *C5\$A!
\$!#I(\$!7(<;%*+5#\$!#)A(\$F5\$(!%(A% (+!H* &!5 ? I(%*+58(!5\$!#%7(%!)#% !+4(!7# ? 5\$*\$+!+#!(;5 ? 5\$*+(!
+4(5% !5\$&(<F%5+5(&!#)!(&5&+*\$<(!*\$7!+#!)F%+4(%!(&+*K;5&4!+4(5%!) *<*7(!#)!+#+*;!<#%+##;>!34(%())#% (0!
5+!H* &!#)!+4(!F+ ? #&!5 ? I#%+*\$<(!)#% !OFC(!+#! ? *5\$+*5\$!* I I (*%*\$<(&!#)!&FK&(%85(\$<(!+#!+4(!
G# ? *\$!%(A5 ? (>!L)!OFC(!#I(\$; . ! (XI% (&&(7!% (&5&+*\$<(!H5+4#F+!%(? #%&(0!4(!H#F;7!K(!IF5&4(70!
+4(!A#&I(;!H#F;7!K(!7(&+## . (7!*\$7!@#7M&! ? (&&*A(!#)!A##7!\$(H&!*\$7!&*;8*+5#\$!*;#SA!H5+4!+4(!
%5&(!#)!(*%; . ! : 4%5&+5*\$5+ . !H#F;7!K(!7(<5 ? *+(7>!OF<*\$!! "#\$#%&!0!H* &!*!I(%)(<+!H* . !)#% !OFC(!+#!
(XI% (&&!45&! IFK;5<! I#;#A . !*\$7!*<NF5(&<(\$<(!+#!G# ? *\$!%F;(>!

34(!% (*&#&\$&!*&!+#!H4 . !OFC(!\$((7(7!+#!(XI;#5!+4(!7FI;5<5+#F&!)(*+F% (&!#)!+4(!4577(\$!
+%*\$&<%5I+!*%(!#K85#F&)>!34(!G# ? *\$!%(A5 ? (!H* &!(*&5; . !I%#8#C(7!*\$7!5\$!*<#\$&+*\$+!&+*+(!#)!
I*%*\$#5*>!L)!OFC(! (XI% (&&(7!*\$. !&5A\$&!#)#!I#&5+5#\$!+#!5+&!<# ? ? *\$70!4(!H#F;7!4*8(!*; ? #&+!
<(%+*5\$; . !K(((\$C5;;(7>!D<#++!\$#+(&!+4*+;!U34(!)5%&!#I(\$!&+*+ (? (\$+!#)!*!4577(\$!+%*\$&<%5I+0!*!
7(<;*%*+5#\$!+4*+!K% (*<4(&!+4(!+5NF(++(!#)!I#H(%!%;*+5#\$&0!+4*+!K%(*C&!*\$!* I I *%(\$+; . !<*; ? !

! · !LK57>0!dc>
! · "LK57>0!dc>

&F%)*<(!#)!&5;(<(!*\$7!<#&\$(\$+0!<%%5(&!+4(!)#<(!#)!*!&. ? K#;5<!7(<;*%*+5#)\$!)H*%>V!,#!

: #&\$&(NF(\$+; . 0!OFC(!<#F;7!\$#!#I(\$; . !&!(X!%(&&!+4(!&;5A4+(&+!K5+!#)!75&&(\$+!H5+4#F+!)(%*!#)!

%(+*+5*+5#)\$!5\$!+4(!)#% ? !#)!&(8(!IF\$5&4 ? (\$+!)%# ? !+4(!G# ? *\$!*F+4#%5+5(&>!345&!7(? #&\$&+*+(&!

#\$(!#)!+4(!I%5 ? *% . !%(*&#&\$&!*&!+#!H4 . !OFC(!4*7!+#!(? I;# . !+4(!4577(\$!+*%\$&<%5I+;!4(!\$#!#&\$; . !

4*7!+#!C((I!45 ? &(;)!*+58(0!KF+!4(!*+&#!4*7!+#!I%(&(&8(!+4(! ? (&&*A(!*\$7!+4(! ? 5\$5&+ . !#)!=(&F&>!

!

]>D<#++! : 4*I+(%!D5X,!b#5<(&! [\$7(!' # ? 5\$*+5#\$,!34(!6%+&!#)!9#;5+5<*;! ' 5&AF5&(!

[\$7(!7# ? 5\$*+5#\$0!&FK#%75\$*+(&!F&(7! ? *\$. !75)))(%(\$+!&+*+ (A5(&!#)!I#;5+5<*;!75&AF5&(>!

L\$!#%7(%!+#!(X!%(&&!%(&5&+*\$<(!H5+4#F+!)(%*!#)!IF\$5&4 ? (\$+0!I#;5+5<*;!75&AF5&(!H* &!

<# ? ? F\$5<*+(7!5\$!8*%5#F&!(<;(<+5<!*\$7!5\$5\$8*+58(!)#% ? &>!OFC(M&!@#&I(;!<#&+*5\$&!*!8*%5(+ . !#)!

\$*%*+58(!)#% ? *+5#&\$&!*\$7!<#&\$<(*;(7!&+*+ (? (\$+&!#)!75&&(\$+>!L\$! : 4*I+(%!D5X!#)!45&!K##C0!D<#++!

*AF(&!+4(!)#; ;#H5\$A,!U - . !*5 ? !5\$!+45&!<4*I+(%!5&!+#!75%(<+!*+(\$+5#&\$!+#!+4(! ? *\$5)#;7!&+*+ (A5(&!

K . !H45<4!&FK#%75\$*+(!A#FI&! ? *\$*A(!+#!5\$5\$F*+(!+4(5%!(&5&+*\$<(!5\$!75&AF5&(7!)#% ? &0!5\$+#!+4(!

IFK;5<!+*%\$&<%5I+>V! · \$!9F+!&5 ? I; . 0!H5+45\$!+4(&(!&#!<*+; ;(7!IFK;5<!+*%\$&<%5I+&0!+4(!&FK#%75\$*+(!

4*8(! ? *\$*A(7!+#!)5\$7!H* . &!+#!&(<(+; . !&!(X!%(&&!+4(5%!(&5&+*\$<(>!34(%(!*%(! ? *\$. !75)))(%(\$+!

H* . &!5\$!H45<4!+45&!%(&5&+*\$<(!<*\$!*\$7!4* &!+*C(\$!)#% ? !5\$&57(!#)!+4(!IFK;5<!+*%\$&<%5I+0!*\$7!

5\$<;F7(!+4(!)#; ;#H5\$A,!*\$#\$. ? 5+ . 0!(FI4(? 5& ? 0!A%F ? K;5\$A0!#%*;!<F;+F%(0!)#;C+* ; (&0!H#%;7T

FI&57(T7#H\$!I%5\$+&0!(+<>!9#;5+5<*;!75&AF5&(!5&!<* ? #F)*A(7!*\$7!5\$&(%+(7!5\$+#! ? *\$. !75)))(%(\$+!

*&I(<+&!#)!;5)(

34(!*+;(%\$*+58(!+#!75&AF5&5\$A!+4(! ? (&&(\$A(%!5&!+#!75&AF5&(!+4(! ? (&&*A(!5+&(;>!)R\$(#!)

D<#+M&! ? #&+!5\$+%5AF5\$A!(X* ? I;(&!#)!+45&!+ . I(!#)!4577(\$!% (&5&+*\$<(!5&!)#F\$7!5\$!45&!*\$*; . &5&!#)!

+4(!FI4(? 5& ? >!J&&(\$+5*;; . 0!+4(!FI4(? 5& ? !% (;* . &!+4(! ? (&&*A(0!KF+!\$#+!H5+4!+4(!&* ? (!%*H!#!

(XI;5<5+!(X(<F+5#\$!*&!+4(!#%5A5\$*;! ? (&&*A(,!U*\$!*;;F&5#\$!+#!I%#)*\$5+ . !H5+4#F+!*!)F;;!

<<# ? I;5&4 ? (\$+!#)!5+>V! ,')!34(!FI4(? 5& ? !+%\$& ? 5+&!+4(!8(%K*;!5\$&F;+0!KF+0!H5+4#F+!+4(!&* ? (!

<#\$85<+5#\$!*&!+4(!#%5A5\$*;!5\$&F;+;!345&!5&!7#\$(!K(<*F&(!+4(!#%5A5\$*;!5\$&F;+!H#F;7!;*7!+4(!

&FK#%75\$*+(&!5\$!+%#FK;(!H5+4!+4(!7# ? 5\$*\$+>!L\$!*\$!())#%+!+#!C((I!+4(!I(*<(!H5+4!+4(!7# ? 5\$*\$+0!

+4(!FI4(? 5& ? !*;;#H&!+4(!&FK#%75\$*+(M&! ? (&&*A(!#)!% (&5&+*\$<(!+#!I%(8*5;!7F(!+#!+4(!)*<+!+4*+!

+4(!5\$&F;+!#)!+4(!#%5A5\$*;! ? (&&*A(!5&18(5;(7!5\$!;(&&!#))(\$&58(!;*AF*A(>!34(!X<5+5\$A!)(*F+%(!#)!

+4(!FI4(? 5& ? !5&!+4*+!5+!*;;#H&!+4(!&FK#%75\$*+(7!+#!U<#\$5\$F*;; . !+(&+!+4(!;5\$AF5&+5<!K#F\$7*% . !

#)!H4*+!5&!I(% ? 5&&5K;(>V! ,)*34(%(!*%(!\$#!%F;(&!#%!AF57(;5\$(&!*&!+#!H4*+!H5;;!I%#8#C(!+4(!

7# ? 5\$*\$+0!*7!&#!+4(!FI4(? 5& ? 0!5\$!*!&(\$&(0!5&!*!A* ? (!#)!<4*\$<(!+#!&((!4#H! ? F<4!#\$(!<*\$!

% (&5&+!+4(!7# ? 5\$*\$+!H5+4#F+!I(\$*;; . >!!

R%*;!<F;+F%(!H*&0!)#%+!+4(! ? #&+!I*%+0!+4(!*8(\$F(!5\$!H45<4!+4(!;#H(%!<;*&&!(XI% (&&(7!

+4(? &(;8(&!7F%5\$A!+4(!)5%&+T<(\$+F% .>! [&F*;; . 0!%(*75\$A!*\$7!H%5+5\$A!H(%(!%(&(8(7!)#%+!+4(!(;5+(!

K(<*F&(!+4(. !4*7!*<<(&&!+#!+4(!7F<*+5#\$!*\$7!+4(!5 ? I; ? (\$+&!+#!7#!&#g!+4(!;#H(%!<;*&&!757!\$#+!

4*8(! ? F<4!<4#5<(!5\$!+4(!H* . !+4*+!+4(. !<# ? ? F\$5<*+(7>!34(%(!*%(! ? *\$. !*&I(<+&!+#!#%*;!)

+%*75+5#\$&!H45<4! ? *C(&!+4(? !+4(!U57(*;18(45<;(&!)#%!<F;+F%*;!% (&5&+*\$<(>V! ,'+!345&!5&!K(<*F&(!#)!

!)!LK57>0!Ed]>!
 !,*!LK57>0!Ed]>!
 !,+!LK57>0!E`2>!

!

d]

!

dc

J<

R\$!+4(!&F%)*<(!#)!+4(!@#&I(;0!OFC(M&!5\$+(\$+!H*&!F\$(NF58#<*;;.!*5?(7!*+!7())(\$75\$A!(%;.!

:4%5&+5*\$5+.!+#!+4(!G#?*&>!"5&!!"#\$/%&!H*&!F\$?5&+*C*K;(>!a(\$(*+4!+45&!<;(8(%!8(5;5\$A0!OFC(!

<#\$_+58(7!45&!%(K(;;5#F&!*\$7!75&&57(\$+!4577(\$!+%*\$&<%5I+>L)!+4(!G#?*!\$*F+4#%5+5(&!75&<#8(%(7!

+45&!4577(\$!+%*\$&<%5I+0!+4(.!H#F;7!4*8(!?#&+!7())5\$5+(;. !K((\$!+4%(*+(\$<7!K. !+4(!(*%;. !=(&F&!

?#8(?(\$+>!"*7!OFC(!#&+K((!&#&!<;(8(%!*\$7!<*;<F;+*5\$A!5\$!4#H!4(!&+%F<+F%(7!45&!A#&I(;0!+4(!

G#?*!\$*F+4#%5+5(&!H#F;7!4*8(!7(<5I4(%(7!45&!4577(\$!57(#;#A5<*;0!I#;5+5<*;!*\$7!(+45<*;!)

%(&5&+*\$<(!*\$7!+4H*%+(7!45&!())#%&!+#!&I%(*7!+4(!:4%5&+5*\$!?(&&*A(>!B#%+F\$*+(;.!)#%!OFC(0!45&!

4577(\$!+%*\$&<%5I+!%(?*\$5(7!*!?.&+(&.!+#!+4(!*F+4#%5+5(&>!6)+(%!(%*75\$A!5\$!K(+H((\$!+4(!;5\$(&!#)!

+4(!OFC(M&!@#&I(;0!#\$(!<*\$!F\$7(%&+*\$7!+4*+!UD*;8*+5#5\$!5\$!I%((?5\$(\$+;.0!&+*+F&!%(8(%&&;jV!"\$!

*\$7!+45&!<#\$(I+!H#F;7!4*8(!(\$%*A(7!+4(!G#?*!\$*F+4#%5+5(&!H5+4!5&!I%#?#5#5\$!#)!*\$!57(*;!#)!

#\$+;#A5<*;0!(X5&+(\$+5*0!*\$7!(+45<*;!eF&+5<(!)#%!+4(!?*A5\$*;>!

!

6>! - *% .M&! - *A\$5)5<*+0!OFC(!E,_`Td`!

J?K(77(7!H5+45\$!OFC(M&!IFK;5<!+%*\$&<%5I+!5&!*\$!4577(\$!+%*\$&<%5I+>!-#5)&!#)75&&(\$+!*%(!

?#&+!I%#?5\$(\$+;. !&((\$!5\$!+4(!\$%*%*+58(&!#)!&+*+F&!%(8(%&&;>!34(!?#&+;#A5<*;!I;*<(!+#!K(A5\$!+4(!

\$; .&5&!5&!H5+4! - *% .M&! - *A\$5)5<*+!POFC(!E,_`TddQ)!3#!IF+!+45&! (8(\$+!5\$+#!<#\$(X+!H5+4!+4(!

%(&+!#)!+4(!A#&I(;0! - *% .M&! - *A\$5)5<*+!#<<F%&!+!+4(!K(A5\$5\$A!#)!+4(!@#&I(;!#)!OFC(>!L+!+*C(&!

I;*<(!*)+(!*\$!\$*A(;!85&5&!*!.#F\$A!H#?*50! - *% .0!H4#!5&!+#!7!+4*+!&4(!H5;;!A58(!K5%+4!+#!@#7M&!

!

d\

!

`E

<#\$(%\$5\$A!&+*+F&>!BF%+4(%0!+4(!A#&I(;!%(*7(%&!H#F;7!4*8(!F\$7(%&+##7!=(&F&M!*<+&! ?#%(!

<(*%;.0

&5 ? 5; *%5+5 (&!5\$! I#H(%!*\$7!5+&!45(%*%<4. !H5+4!+4(!G# ? *\$!%(A5 ? (!H#F;7!4*8(!NF(; ;(7!+4(!

G# ? *\$M&!)(*%&!#)!% (&5&+*\$<(>!#S!

S (! ? F&+!*;&#!;##C!+#!+4(!<4*%*<+(%#!#)! - *% . !4(%&(;>!6&!*!%(&F;+!#)!4(%!&+*+F&!*&!*

H# ? *\$0!*\$7!+4(! ? #+4(%#!#)!=(&F&!H4#!\$#!;#\$A(%!(X5&+(70! - *% . !*\$7!4(%!&#\$A!H#F;7!\$#+!4*8(!

K((\$!&((\$!*&!<*;&!+#!%(K(;;5#\$>!RK85#F&; . 0! - *% . !H*!&!H# ? *\$!*\$70!*&!H(!4*8(!&((\$!K())#%(0!

H# ? (\$!757!\$#+!4#;7!*!;#+!#)!I#H(%!5\$!&#<5(+. !*\$7!+4(5%!(+&+5 ? #5\$(&!757!\$#+!<# ? ? *\$7!%(&I(<+>!

- *% . M&!A(\$7(%0!

4*8(!*;%(*7.!\$#+(7!+4*+15)!+4(! ? (&&(\$A(%15&!*\$#\$\$. ? #F&!#%!*8#57(7!5\$!&# ? (!H*.0!+4(!) (*%#!#)!

%(+*;5*+5#\$!5&!% (7F<(70!)#%!+4(!% (*&#\$!+4*+!+4(% (!5&!\$#!&5\$AF;*%#!#&+(\$&5K;(!)5AF%(!+#!K;* ? (>!

!

a>!34(!G5<4! - *\$!*\$7!O*^*%F&0!OFC(!E` ,E\T]E!

OFC(M&!\$(X+! ? #&+!I%# ? 5\$(\$+!5;F&+%*+5#\$!#)!)&+*+F&!%(8(%&*;!5&!)#F\$7!5\$!+4(!9*%*K;(!#)!

+4(!G5<4! - *\$!O*^*%F&>!34(!+4(? (&!)#F\$7!5\$!+45&!I *%*K;(!*(!&5 ? 5;*%#!+#!+4#&(!#)!)!+4(! - *A\$5)5<*+!

K(<*F&(!5\$!+4(!G5<4! - *\$!*\$7!O*^*%F&!+*%75+5#\$0!OFC(0!U>>K*&(&!+4(!% (8(%&*;!#)\$!&#<5*;!eF&+5<(!

\$7!5\$(NF;5+. ! ? F<4! ? #%(!+4*\$!5+!7#(&!#)\$!I5(+.>V!#) ! S (!H5;;!&(!+4*+! ? *\$. !OF<*\$!+4(? (&!

K#F+!&#<5;!*\$7!(<#\$# ? 5<!eF&+5<(!H5;;!%(<(58(!;(&&! (? I4*&5&!5\$!)F+F%(!I*%*K;(&0!*&!I5(+. !H5;;!)

I;* . !*! ? F<4! ? #%(!I%# ? 5\$(\$+!*\$7!5 ? I#%+*\$!%#;(>!)OFC(!#)+(\$!5\$)#% ? &!+4(!% (*7(%!+4*+!I(#I;(!

*%(!*K;(!+#!% (*<4!+4(!h5\$A7# ? !#)!)@#7!5)!+4(. !*%(!I5#F&!*\$7!% (&I(<+)F;!I(#I;(>!345&!I*%*K;(!5&!

75))%(\$+!K(<*F&(!*! ? *\$!#)!)!;#H(%!&+*+F&!5&!*K;(!+#!% (*<4!+4(!h5\$A7# ? !#)!)@#7!*&!4(!5&!&((!\$!*&!

H#%+4.0!H4(%(*&!+4(! ? *\$!#)!)!*!45A4(%!&+*+F&!5&!\$#>!!

34(%(!H*&!*!%5<4! ? *\$!H4#H*&!7% (&&(7!5\$!IF%I;(!*\$7!)5\$(!;5\$(\$!*\$7!H4#)!)(*&+(7!
&F ? I+F#F&; . !(8%. !7*.>!6\$7!*+!45&!A*+(!;* . !*!I##% ! ? *\$!\$* ? (7!O*^*%F&0!<#8(%(7!H5+4!
&#% (&0!H4#;!#A(7!+#!&*+5&). !45&!4F\$A(%!H5+4!H4*+!)(!;!)%# ? !+4(!%5<4! ? *\$M&!+*K;(g!(8(\$!
+4(!7#A&!H#F;7!<# ? (*\$7!;5<C!45&!&#% (&>!34(!I##% ! ? *\$!75(7!*\$7!H*&!<*%5(7!*H* . !K. !
+4(!*\$A(;&!+#!K(!H5+4!6K%*4* ? >!34(!%5<4! ? *\$!*;&#!75(7!*\$7!H*&!KF%5(7>L\$! " *7(&0!
H4(%(!4(!H*&!K(5\$A!+##% ? (\$+(70!4(!;##C(7!FI!*\$7!*H!6K%*4* ? !)*%!*H* . !H5+4!O*^*%F&!
K. !45&!&57(>!) " (!<*; ;(7!#F+0!UB*+4(%!6K%*4* ? 0!4*8(! ? (%<. !#)\$? (0!*\$7!&(\$7!O*^*%F&!+#!
75I41(5)0.2(+0.2(4!)JTJET0q0.24!

!

、

I%#I4(+&g!+4(.!&4#F;7!;5&+(\$!+#!+4(?>V! " (!&*570!UY#0!)*+4(%!6K%*4* ?g!KF+!5)!&# ? (#\$(!
A#(&!+#!+4(?!)%# ? !+4(!7(*+40!+4(.!H5;;!(I(\$>V! " (!&*57!+#!45 ?0!UL)!+4(.!7#!\$#+!;5&+(\$!+#!
- #&(&!*\$7!+4(!I%#I4(+&0!\$(5+4(%!H5;;!+4(.!K(!<#\$85\$<(7!(8(\$!5)!&# ? (#\$(!%5&(&!)%# ?!
+4(!7(*7>V!POFC(!E` ,E\T]EQ!
!

' F%5\$A!+4(!)5%&+T<(\$+F% . !#)!+4(! : # ? ? # \$! J % * 0 ! & + * + F & ! H 5 + 4 5 \$! + 4 (! & # < 5 * ; ! 4 5 (% * % < 4 . ! H * & !

(8(% . +45\$A!5\$!+4(!G# ? *\$!J ? I5%(>L)!*!I(%&#\$!H(%(

(857(\$+!*; ? #&+!5 ? ? (75*+(; . g!)#%!O*^*%F&!5&!57(\$+5)5(7!*\$7!\$* ? (70!KF+!+4(!%5<4! ? *\$!5&!\$#>+!

J8(\$!+4#FA4!H(!*%(!+#!;7!+4*+!O*^*%F&!;58(7!*!;5)(!#)!5 ? I#8(%5&4 ? (\$+0!OFC(!&+5;;!57(\$+5)5(&!45 ? !

K(<*F&!4(!H*\$+&!+#!%(*; * .!+4(! ? (&&*A(!+4*+0!<#\$+%*% . !+#!I#IF;*%K(;5()0!5+!5&!\$#+!45&!&+*+F&!5\$!

&#<5(+ .!+4*+!7(+(% ? 5\$(&!45&!5 ? I#%+*\$<(>!OFC(!K(&+H&!+4(!*\$#\$. ? #F&!+5+;(!U+4(!%5<4! ? *\$V!

#\$+#!+4(!<4*%*<+(!#)!(;5+(!&+*+F&!5\$!#%7(%!+#!&4#H!45&!5\$&5A\$5)5<*\$<(!5\$!+4(!&+%F<+F%(&!#)!I#H(%!

45&!&#%(&v!34%#FA4!+45&!I**K;(0!OFC(!*;;#H!F&!+#!#K&(%8(!+4*+!=(&F&M! ? 5\$5&+% .!) *8#%(7!+4(!
 ;#H;. 0!*\$7!5+!H* &!+4(&(!I(#I;(!H4#!H#F;7!K(!A%*\$+(7!@#7M&!&*;8*+5#\$!*\$7!*&<(\$7!+#!4(*8(\$!
 =#(!@%(((\$!(* &&(%+&!+45&!*\$7!&+*+(&!U34(! ? (&*A(!#)!)=(&F&15&!+4*+!&F<4!&+*+F&! ? *%C(%&!*(!\$#!
 ;#\$A(%!K5\$75\$A>!6\$. #\$(! ? * .!)%((; . !%(<(58(!+4(!A%*<(!#)!@#7>!6\$. #\$(! ? * .!e#5\$!+4(!
 <# ? ? F\$5+ . !#)!)=(&F&M!)#;;#H(%&>!6;;!*%(!H(<# ? (>V!\$#!

L+!5&!*; &#!H#%+4!\$#+5\$A!+4*+!+45&!I**K;(!(<4#(&!&+*+F&!% (8(%&*;!+4*+!5&!)#F\$7!5\$!=(&F&M!

I%(*<45\$A!)%# ? !+4(!D(% ? #!\$#!\$!+4(!9;*5\$>!\$!L\$!+4(!9*%*K;(!#)!+4(!G5<4! - *\$!*\$7!O*^*%F&0!

6K%*4* ? !&* . &!+#!O*^*%F&0!5\$!OFC(!E` ,1d,!U : 45;70!%(? (? K(%!+4*+!7F%5\$A! .#F%!(;5)(+5 ? (! .#F!

%(<(58(7! . #F%!A##7!+45\$A&0!*\$7!O*^*%F&0!5\$!;5C(! ? *\$\$(%!(85;!+45\$A&g!KF+!\$#H!4(!5&!<# ?)#%+(7!

4(%(0!*\$7! . #F!*%(!5\$!*A#\$. >V!\$%!345&!+4(? (!5&!(<4#(7!5\$!+4(!D(% ? #!\$#!\$!+4(!9;*5\$!*&!=(&F&!

+(*<4(&!*K#F+!W a ;(&&5\$A&!*\$7! S #(&M!5\$!+4(!)#;;#H5\$A!(X+%*<+!

U a ;(&&(7!*%(! . #F!H4#!*%(!I##0!!
 !!)#%!. #F%&15&!+4(!C5\$A7# ? !#)!@#7>!!
 U a ;(&&(7!*%(! . #F!H4#!*%(!4F\$A% . !\$#H0!!
 !!)#%!. #F!H5;;!K(!)5;;(7>!!
 U a ;(&&(7!*%(! . #F!H4#!H((I!\$#H0!!
 !!)#%!. #F!H5;;!*FA4 j !!
 U a F+!H#(!+#! . #F!H4#!*%(!%<40!!
 !!)#%!. #F!4*8(!%(<(58(7! . #F%!
 <#\$&#;*+5#\$>

34(!D(% ? # \$! # \$! +4 (!9; *5\$!5&!+4 (!57(*; !I% (<F%&#% !+#!OFC(M&!9*%*K; (!#)!+4 (!G5<4! - *\$!*\$7!

O*^*%F&!K(<*F&(!K#+4!(8(\$+&!*%(!<#\$<(%\$(!H5+4!+4(!%(*;5+5(&!#)!%*75<*;!(<#\$# ? 5<!75&I*%5+ .!

\$7!7\$A(%&!#)!(X<(&&58(!H(*;+4>!34(!<# ? I; (? (\$+*% .!(8(\$+&!*%(!5 ? I#%+*\$!

!

~/

%(<#F%&(j v!\$*!OFC(!#F+;5\$(&!*!+. I(!#)!%(8(%&*;!+4*+!5&!<#<(%\$(7!H5+4! ? F<4! ? #%(!+4*\$!*!

&5 ? I;(!;(8(;\$A0!+4(!%5<4!*%(!\$#!+eF&+!K%#FA4+!;#H0!KF+!+4(. !*%(!K%#FA4+!+#!*!;#H!+4*+!+4(!I##%!

\$ (8(!!(8(\$!%(*<4(7>!34(!4577(\$!+%*\$&<%5I+!#)!75&&(\$+0!&+*+F&!%(8(%&*;!0!*\$7!%(e(<+5# \$#)!G# ? *\$!

5 ? I(%5*;!57(*;&!*\$7!\$## ? &!)#F\$7!5\$!+45&!I**%K;(!* ;#(\$!5&!)*%!(*<45\$A>!OFC(!<# \$+*%75<+&!+4(!

I%(8*5;5\$A!K(;5(!+4*+!&+*+F&!(\$&F%(7!I%#&I(%5+ . !5\$!+4(!*)+(% ;5)(0!*\$7!45&!%(I%(&(\$+*+5# \$#)!#)

(X+% (? (!&+*+F&!%(8(%&*;!0!5\$!I*%+5<F; *%0!H*&! ? #&+!<(%+*5\$; . !*5 ? (7!*+!<%5+5NF5\$A!+4(!*F+4#%5+5(&!5\$!

!H . !5\$!H45<4!+4(. !H#F;7!\$#!+4*8(!K((\$!*K;(!+#!7(<#7(>!

!

: >!34(!9**%K;(!#)!+4(! [\$eF&+!=F7A(0!OFC(!E/ ,ET/!

34(!9**%K;(!#)!+4(! [\$eF&+!=F7A(!<*%5(&!*\$!#8(%* ;;! ? (&*A(!H45<4!(X(? I;5)5(&!+4(!

5 ? I#%+*\$<(!#)!+4(!I(%&5&+(\$<!5\$!I* . (%>!OFC(!H%5+(&!#)!=(&F&!I%(*<45\$A!*K#F+!*\$!F\$eF&+!eF7A(!

*\$7!*94Tm/T5 . 87 65cmBT50030 . 2(\$0 . 2(4*)0 . . 2(+)0 . 4#()0 . 2(&)2()0 . 2(F&) - - 0 . 2(+)2()0 . 2(*)0 . =) - 0 . 2(=) - 0 . 2(

!

\

C((I&K#4(%5\$A! ? (0!L!H5;;!A%*\$+!4(%!eF&+5<(&0!&#!+4*!&4(! ? * . ! \$#!H(*% ! ? (!#F+!K . !
<#5\$5F\$*;; . !<# ? 5\$A>MM! 6 \$7!+4(!O#%7!&*570!UO5&+(\$!+#!H4*+!+4(!F\$eF&+!eF7A(!&* . &> 6 \$7!
H5;;!\$#!@#7!A%*\$+!eF&+5<(!+#!45&!<4#&(\$!#\$(&!H4#!<% . !+#!45 ? !7* . !*\$7!\$5A4+o! S 5;;!4(!
7(* . !;#A!5\$!4(;I5\$A!+4(? o!L!+(;;!. #F0!4(!H5;;!NF5<C; . !A%*\$+!eF&+5<(!+#!+4(? >! 6 \$7! . (+0!
H4(\$!+4(!D#)\$#!) - *\$!<# ? (&0!H5;;!4(!)5\$7!) *5+4!#\$(*%+4oV!POFC(!E/ ,ET/Q!

!

B%# ? !+4(!K(A5\$\$5\$A!#)!+45&!I%*%*K;(0!+4(!%(*7(%!<*\$!A%*&I!+4(!&+*+F!%(8(%&*;!*+!I;* . !

H5+4!+4(!<4*%*<+(&>!34(! [\$eF&+!=F7A(!H*!&!*!I(%&#H4#0!U>>\$(5+4(%!)(*(7!@#7!\$#%!4*7!

%(&I(<+!)#%!I(#I;(V!\$+!POFC(!E/ ,1Q>!L\$!+4(!)5%&+!<(\$+F% . 0!G# ? *\$!eF7A(&!H(%(!&FII#&(7!+#!K(!

5 ? I%*+5*;! ? (? K(%&!#)!+4(!A#8(%\$? (\$!H4#!*K57(7!K . !+4(!;(A*;!& . &+(? !*\$7!7#;(7!#F+!

IF\$5&4 ? (\$!*\$7!eF&+5<(!5\$!*<<#7*\$<(!H5+4!+4(!I(\$*;!& . &+(? >!L\$+(%&+5\$A; . 0!+45&!H*!&I\$#!+!F(!

)#%!eF7A(&!H4#!H(%(!5\$!&(%85<(!*+!+4(!+5 ? (!=&F&!H*!&I(%<*45\$A0!*&! " (%^#A!5\$)#% ? &!F&!+4*+;!

U j +4(!<#\$(%\$!#8(%!<#%FI+!eF7A(&!5&!(7\$ (? 5<!5\$!+4(!;5+(%*+F%(!#)!+4(!+5 ? (>V!% . !L+!H*!&!

<# ? ? #!C\$#H;(7A(!+4*+!eF7A(&!H(%(!5 ? ? #%*;!<4*%*<+(&!*\$7!+4(!eF7A(!5\$!+4(!I%*%*K;(!H*!&I\$#!

75))(%(\$+0!*&!4(!4*7!+4(!*K5;5+ . !+#!,UF&(!45&!#))5<(!+#!;5\$(!45&!I#<C(+& j !m*\$7!+45&!H*!&n!&5 ? I; . !

+4(!H* . !+4(!& . &+(? !H#%C(7>V!%!!

OFC(M&!I%(\$+*+5#)\$#!)+4(!H# ? *\$!45A4;5A4+&!+4(!75&I%*5+ . !5\$!+4(5%!&+*+F&>!34(!H57#H!

H*!&!<4*%*<+(&5^(7!*!&! ? #7(;!#)!4#H! : 4%5&+5*\$&!#FA4+!+#!K(4*8(>!a . !<#\$(%*+&+0!+4(!eF7A(0!H4#!

<#F;7!4*8(! ? #7(;(7!*! ? #%(!(+45<*;!eF%5&+0!5;;F&+*%+(7!4#H!#\$(!&4#F;7!*#;!*<+!) " (%^#A!H%5+(&!

U34(!eF7A(!F+(%; . !)*5;&!+#!I(%<(58(!+4(!<#\$(NF(\$<(!#)!45&!K(4*85#%!#\$!+4(!H57#H>!345&!

#K+F&(\$(&!5&!+4(!<;(%*(+!5\$75<*+#!#)!45&!;*<C!#)!&4* ? (>V!%!" S # ? (\$0!*&!H(!\$#H!C\$#H0!H(%(!

!\$+!OFC(!E/ ,1>
!% , ! " (%^#A0!K!- ! = \$) . + ! . + J ? = X) - . &X) + J") / '0!11c!
!% ! !LK57>0!11c>!
!% " !LK57>0!11c>!

\$#!(A*%7(7!45A4;. !5\$!)5%&+!<(\$+F% . !G# ? *\$!&#<5(+. !K(<*F&(!+4(. !H(%(!&(((\$!*&!;(&&(%!K(5\$A&!+#!
 ? (\$>!34(!45(%*%<4. !5\$!&#<5(+. ! ? (*\$+!+4*+!+4(!eF7A(!*\$7!+4(!H57#H!H(%(!*+!I#; *% !#II#&5+(!
 (\$7&!#)!)4(!&I(<+%F ? !#)!)&#<5*;!&+*+F&!34(!H# ? *\$!&##7!\$#!<4*\$<(!5\$!H5\$\$5\$A!4(%!K*+; (!)#!
 eF&+5<(*\$7!&4(!U>>H*!&!* ; ? #&+!*!& . ? K#; !#)!)4(; I; (&&\$(&&>!D4(!H*!&!5\$!\$#!I#&5+5#\$!+#!K%5K(!+4(!
 eF7A(!*\$7!&4(!4*7!\$#!I#%#(<+#!+#!IF+!I%(&&F%(!#\$!45 ? >!D4(!H*!&!*% ? (7!H5+4!\$#+45\$A!KF+!+4(!
)*<+!+4*+!%5A4+!H*!&! (857(\$+; . !#\$!4(%!&57(!P&4(!*!&C(7!)#%!eF&+5<(!\$#+!8(\$A(*\$<(Q!*\$7!4(%!#H\$!
 I(%&5&+(\$<(>V!%#)34(!H# ? *\$!H*!&!I#H(%; (&!*\$A*5\$&+!+4(!eF7A(!*\$7!7(&I5+(!+45&!*\$78(%&5+ . 0!&4(!
 &+5;;!I(%&5&+(7!+#!)5A4+!)#%!4(%!%5A4+&>!

OFC(M&!4577(\$!+%*\$&<%5I+!#)!75&&(\$+0!H5+4!*!%(e(<+!#)!F\$eF&+!G# ? *\$!I#H(%!0!5&!*+!I; * . !5\$!
 +45&!I*%*K; (>!345&!I*%*K; (!&5A\$* ; &!+#!+4(!I#H(%; (&&!+4*+!+4(%(!5&!4#I(!)#%!+4(? !5\$!+4(!H#%; 7!#)!
 7# ? 5\$*+5#\$>!34(!*!<+!#)I(%&(8(%*\$<(!5&!#K85#F&!U345&!%(8(%&*;!#)!)#%; (&!4*!&!*\$! ? *^5\$A(!))(<+g!
 KF+!5+!5\$!\$#!*!<<# ? I; 5&4(7!(*!&5; . !#% !NF5<C; . 0!)#%!+4(!7(;F&5#\$* ; !I#H(%!#)!)4(' # ? 5\$*+5#\$!
 D. &+(? !5&!<#\$&57(%*K; (>V!%\$!OFC(!7(? #&+*+(&!+4*+!H5+4!)*5+4!*\$7!I(%&(8(%*\$<(0!+4(!
 7# ? 5\$*+(7!4*8(!+4(!*K5; 5+ . !+#!% (<(58(!eF&+5<(>!34(!H57#H!<*\$!K(!<# ? I*%(7!+#!D<##+M&!
 I#%+*% . *;!#)!)4(!+5<C&+(%!5\$!)#; C+* ; (&!K(<*F&(!+4(!<4*%*+<(%!#)!)4(!+5<C&+(%!7#(&!\$#+!F&(!)#<(!
 #%!&+%(\$A+4!+#!(&+*K; 5&4!eF&+5<(g!5\$&+(*7!+4(. !F&(!+4(5% !H5+&!*\$7!#+4(%!<F\$\$5\$A!AF5&(&!+#!*!<45(8(!
 +4(5%!5\$+(\$7(7!*5 ? >!O5C(H5&(0!U34(!%)F&*;!#)!)4(!H57#H!+#!*!<<(I+!4(%!I% (7(&+5\$(7!#%; (!K%(*C&!
 &#<5* ; !K*%5(%&!*\$7!<##&&(&!)#%K577(\$!&#<5* ; !*\$7!A(\$7(%!K#F\$7*%5(&>!34(!%(&F; +!#)!)4(%!

!%#! - #%%5&0!N?E)0!1 / cT1 / />!
 !%\$! " (%^#A0!K! - ! = \$) . + ! . + J ? = X) - . &X) + J") / '0!1]2>!

&4* ? (;(&&!K(4*85#%15&!*!eF&+!8(%75<+>V!%#!34(!H57#H!4*7!\$#+45\$A!+#!;#&(!*\$7!(8(% .+45\$A!+#!
A*5\$!)%# ? !4*%*&&5\$A!+4(!eF7A(0!*&!*!%(&F;+!#)!+45&!&4(!U ? *\$*A(7!+#!K%(*C!+4(! ? #;7>V!%#!34(!
H57#H!%(<(58(7!4(%!eF&+5<(!H4(\$!*;;!#)!+4(!#77&!H(%(!*A*5\$&+!4(%>!34(!H# ? *\$!5\$!+45&!I*%*K;(!
H#F;7!\$#+!4*8(!K((!\$!*!+4%(*+(\$5\$A!I%(&(\$<(!*A*5\$&+!4(!G# ? *\$!(A5 ? (0!*&!H*!&!+4(!<*&(!H5+4!
+4(! - *% . !H4#!&*\$A!+4(! - *A\$5)5<*+>!a#+4!H# ? (\$!H(%(!*\$#\$. ? #F&!*\$7!#)!*!;#H; . !&+*+F&0!*\$7!
+4(&(!<4*%*<+(%5&+5<&!H#F;7!\$#+!4*8(!K((!\$!5\$75<*+58(!#)!&FK8(%&5#\$!#%!(K(;;5#\$>!a#+4! - *% .!
*\$7!+4(!H57#H!H(%(!*K;(!+#!&*) ; ; !(\$A*A(!5\$!U)*<5;5+*+5\$A!#I(\$!<%5+5<5& ? >V!%)!OFC(M&!4577(\$!
+*%\$&<%5I+!H5+45\$!+45&!I*%*K;(!5&! ? F;+5)*<+(7>!

34(!4577(\$!+*%\$&<%5I+!<#\$+5\$F(&!5\$!*!\$(H!)#% ? !H4(\$!+4(!5&&F(!#)!&*;8*+5#\$!<# ? (&!5\$+#!

I;* . !*+!+4(!(\$7!#)!+45&!I*%*K;(>!=(&F&!(X<;*5 ? &!5\$!OFC(!E/,c0!U 6\$7!H5;;!\$#+!@#7!A%*\$+!eF&+5<(!
+#!45&!<4#&(\$!#\$(&!H4#!<% . !+#!45 ? !7* . !*\$7!\$5A4+oV!%#!345&!H#F;7!4*8(!A58(\$!+4(!(*% ; . !
: 4%5&+5*\$&!4#I(0!K(<*F&(!,UD5\$<(!8(\$!*\$!F\$eF&+!eF7A(!<*\$!&# ? (+5 ? (&!7#!eF&+5<(! ? F<4! ? #%(!
? F&+!H(!X!(<+!+4*+!+4(!%5A4+(!#F&!@#7!H5;;!85\$75<*+(!'&.+)\$/>V!%+! S (!<*\$!&((!+4*+!OFC(!5&!
H#5+5\$A!*K#F+!4#H!+4#&(!H4#!I%* . !*\$7!H4#!*%(!#K(75(\$!+#!@#7!H5;;!K(!&*8(7!*\$7!+4#&(!H4#!
7#!\$#+!4*8(!+4(!)*5+4!H5;;!\$#+>!L\$!(&&(\$<(!OFC(!5&!+(!;;5\$A!45&!)#;#H(%&!+#!K(!I(%&5&+(\$+!
K(<*F&(!+45&!H5;;!&*8(!+4(? 0!*\$7!+4*+!+4(5%#!#I I%(&&#%&!H5;;!\$#+!K(!*K;(!+#!%(*<4!@#7M&!
h5\$A7# ? !K . !%(*&#H!#)!+4(? !\$#+!4*85\$A!(X45K5+(7!+4(!<#%&(<+!K(4*85#%>!34(!;*&+!;5\$(!#)!+45&!

I**K;(!H#F;7!K(!4*%7!)#%!+4(!F\$+%*5\$(7!(.(!#7(<5I4(%>!=(&F&!*&C&!5\$!OFC(!E/,/0!U6\$7!. (+0!
H4(\$!+4(!D#\$!#)! - *\$!<# ? (&0!H5;;!4(!)5\$7!)*5+4!#\$(%+4oV!(! S 5+4#F+!+4(!<#%(<+!C\$#H;(7A(!
*\$7!<#\$+(X+0!+4(!*8(%*A(!G# ? *\$!*F+4#%5+*+58(!)5AF%(!H#F;7!4*8(!F\$7(%&+##7!+45&!NF(&+5#\$!+#!
K(!*&C5\$A!H4(+4(%!#%\$#!+4(! - (&5*4!H#F;7!)5\$7!)*5+4!#\$(%+4!H4(\$!+4(!+5 ? (!<# ? (&!)#%!45&!
**%58*;>! #H(8(%0!+4(!(*% ;. ! : 4%5&+5*\$!)#);;#H(%&!H#F;7!4*8(!5\$+(%I% (+7!+4(!NF(&+5#\$!5\$!+45&!
H* . ,!U" (!5&!&* .5\$A!+4*!+4(!<4*%*<+(%5&+5<!#)!+4(!H#%;7M&!I(#I;(!*!+4*!+5 ? (!H5;;!\$#!+K(!)*5+4!
9(#I;(!#)!+4(!H#%;7!\$(8(%!%(<#A\$5^(!+4(!H* .&!#)!@#7!*\$7!+4(!. !H5;;!\$#!+K((!45&!85\$75<*+5#\$!#)!
45&!(<+>V!(!L\$!+45&!I**K;(!OFC(M&!4577(\$!+%*\$&<%5I+!H#F;7!4*8(!K((\$!*; ? #&+!5 ? I#&&5K;(!)#%!
+4(!G# ? *\$!*F+4#%5+5(&!+#!F\$<#8(%>! " 5&!H#%7&!#)!75&&(\$+!*\$7!(8#;+!*%(!&FK+;(0!*\$7!. (+!A58(!
%(*&&F%*\$<(!+4*!+5!5&!+4(!(*% ;. !=(&F&! ? #8(? (\$+!*\$7!+4(!K(;5(8(%&!5\$!=(&F&M!H#%7!H4#!H5;;!
%(<(58(!&*;8*+5#\$0!*\$7!\$#!+4(!F\$eF&+!34(!&((? 5\$A; . !%5A4+(#F&!H5;;!\$#!+K(!*<<(I+(7!5\$+#!@#7M&!
h5\$A7# ? !;5C(!+4(!. !+4#FA4+>!OFC(M&!I#;5+5<&!#)!75&&(\$+!*\$7!<%5+5NF(!#)F\$eF&+!G# ? *\$!I#H(%!
7(? #&+%*+(&!+4*!+@#7!&((&!*;0!*\$7!(8(\$!&# ? (#\$(!H4#!5&!I(%<(58(7!+#!K(! ? #*%0!KF+!5&!\$#!+0!
5>(>!+4(! [\$eF&+!F7A(0!H5;;!\$#!+K(!(\$+5+;(7!+#!&*;8*+5#\$!)

!

'>!34(!94*%5&(!*\$7!+4(!3*X!P3#;0! : #;;(<+##0!OFC(!E/, \TE_!

6&!H(!4*8(!&(\$K)#% (0!+4(!9*%*K;(!#)!+4(!94*%5&(!*\$7!+4(!3*X! : #;;(<+##!H*&!*!I*%+!

#)!+4(!OF<*\$! I#;#A(+5<!A(\$7*>! " #H(8(%0!H4*+!5&!5\$+(%(&+5\$A!*K#F+!+45&!I**K;(!5&!+4*+!5!5&!

!(!OFC(!E/,/>>!
!(! - #%%5&0!N?E)0!1/\>!

;&#!!I*%+!#)!+4(! (8*\$A(;5&+M&!4577(\$!+%*\$&<%5I+>!OFC(M&!% (+(;;5\$A!#)!+45&!I*%*K;(15&!*\$!#K85#F&!

5\$<57(\$<(!#)!&+*+F&!% (8(%&*;>!345&!I*%*K;(15&!#)+(\$!*&&(&&(7!*&!&5 ? 5; *% !+#!+4(!9*%*K;(!#)!+4(!

[\$eF&+!=F7A(!K(<*F&(!+4(!<4*%*<+(%&!5\$!K#+4!+%*75+5#\$&! ? 5 ? 5<!#\$(!*\$#+4(%0!*\$7!+4(!I*%*K;(&!

%(!I;<(7!*7e*<(\$+!+#!#\$(!*\$#+4(%!5\$!+4(!OF<*\$!\$*%*+58(>!L\$!K#+4!I*%*K;(&0!+4(! [\$eF&+!=F7A(!

!

c_

KF+! ? 5\$#%!)F\$<+5#\$\$*%5(&>V!C"!

A(\$(%#&5+.>)34(!\$*+F%(!#)!+4(!7(K+!<#7(&!45A4;5A4+&!+4(!I(%8(%&(\$(&!#)!+4(!94*%5&(M&!

(X<;*?*+5#\$&! "(%(!OFC(M&!&+*+F&!% (8(%&*;!7())5(&!+4(!IF%5+.!;*H&!*\$7!<(\$&F%(&!+4(!5? ?#%*;5+.!

#)!<(%+*5\$!;*H&!+4*+!K#+4!G# ? *\$!5 ? I(%5*;*F+4#%5+5(&0!*\$7!&# ? (!=(H5&4!*F+4#%5+5(&0!&#FA4+!+#!

I(%I(+F*+(>!

34(!I*%*%;(;&!+4*+!+4(!I*%*K;(!5\$!NF(&+5#\$!4*!&!H5+4!+4(!9*%*K;(!#)!+4(! [\$eF&+!=F7A(!*%(!

<;(*%>! S (!4*8(!I% (85#F&;. !&((\$!4#H!+4(!H57#H!K% (*C&!+4(! ? #;7!#)! (XI (<+*+5#\$&!*\$70!

;5C(H5&(0!U+4(!+##; !<#;; (<+##0!+4(! ? #&!&4* ? (7!#)!+4(!&4* ?)F;0!K% (*C&!+4(! ? #;7!#)!

(XI (<+*+5#\$&!*\$7!<4*\$A(&!+4(!I% (75<+(7!#F+<# ? (>V!^+!

I%*<+5<*;! ? #7(&!#)!<#<(*; ? (\$+!*%(!;5 ? 5+(7!#<\$. !K. !+4(!5 ? *A5\$*+58(!<*I*<5+. !#)!

&FK#%75\$*+(&>V¹)·!34(!OF<*\$!4577(\$!+%*\$&<%5I!+%*\$&<(\$7&!+4(!5 ? *A5\$*+58(!<*I*<5+. !+4*+!5&!

? (\$+5#\$ (7!5\$!+4(!)# ? (%!NF#+*+5#\$>!345&!5&! (857 (\$+!5\$!+4(!&F<<(&&!#)!OFC(M&!4577(\$!+%*\$&<%5I!

*&!+4(!G# ? *\$!*F+4#%5+5(&!+##C!45&!A#&I(!;+#!K(!*\$! ! "#\$%&! !*\$7!757!\$#+!&F&I(<+!*!)F%+4(%0!

<#<(*;(7!*A(\$7*>!

OFC(!<(*%; . !<4*;;(\$A(7!+4(!I%(&F ? (7!5\$)(%5#%!&+*F&!+4*+!*X!<#;;(<+##%&!+ . I5<*;; . !4(;7>!

345&!I**%K;(!5&!#\$(!+4*+!I%(*<4(&!@##7!Y(H&!+#!+4(!#F+<*&&!#)!&#<5(+.)L+! ? F&+K(!\$#+(7!+4*+!

+45&!5&!\$#+!+4(!#<\$. !5\$&+*\$<(!+4*+!OFC(!5\$<;F7(&!#)!*!*X!<#;;(<+##%!(*<45\$A!&*;8*+5#\$0!*&!

&*;8*+5#\$!H*!&!*;&#!*H*%7(7!+#!*+*X!<#;;(<+##%!\$? (7!k*<<4*(F&!k*<<4*(F&! ? 5%##(7!+4(!

<F%(\$+!*X!<#;;(<+##%!+4*+!H(!4*8(!&((!\$!5\$!OFC(!E/_TE_0!K(<*F&!k*<<4*(F&!4F ? K;(7!45 ? &(;)!0!

<C\$#H;(7A5\$A!4(!H!&!&5\$\$(%>! " (!5&!I#%+*% . (7!*!&* . 5\$A!+4(!)#;;#H5\$A!+#!=(&F&;!UO##C0!4*);!

#)! ? . !I#&&(&&5#\$&0!O#%70!L!H5;;!A58(!+#!+4(!I##%g!*\$7!5)!L!4*8(!7!)%*F7(7!*\$. #\$(!#)!*\$. +45\$A0!L!

H5;;!I* . !K*<C!)#F%!+5 ? (&!&! ? F<4>V¹)! !k*<<4*(F&!F\$7(%&+##7!45&!&+*F&!&!&!&5\$\$(%!*\$7!

%(<#A\$5^(7!+4*+!4(!H*!&!&+)*F;+0!*&!757!+4(!+*X!<#;;(<+##%!5\$!+4(!I**%K;(>!=#(;!@%((!\$!#K&(%8(&!#)!

k*<<4*(F&!U345&!5&!* ? (&&*A(!#)!&*;8*+5#\$T*%T%(8(%&*;0!#)!&+*F&!+*%\$&I#&5+5#\$0!#)5\$&57(%&!

K(<# ? 5\$A!#F+&57(%&0!#)!A%*<(!)#%!F\$(XI(<+(7!I(#I;(>V¹)" !OFC(!F&(&!45&!I**%K;(&!+#!

7(? #&+*%+(!+4(!#\$+5#\$!+4*+!&*;8*+5#\$!5&!)#%!+4#&(!H4#!<#<\$(&&!+4(5%!&5\$&!*\$7!4F ? K;(!

+4(? &(;8(&!R8(%*;;!+45&!I**%K;(14*!&!75&I;* . (7!5+&(;)!+#!K(!*!85+*;!I**%+!#)!OFC(M&!;*A(%!*A(\$7*!

!)·!D<#++0!O#I&*!,&#*+!* (+, ')+2-, . +#3+4) . &., ! */)0!E] \>!)! !

5\$!45&14577(\$!+%*\$&<%5I+>!34(!)*<+!+4*+!OFC(!5\$<;F7(7!*!I(%&#)\$!)%# ? !#\$(!#)!+4(! ? #&+!4*+(7!
 <;*%&&(&#)#!I(#I;(!5\$!&#<5(+. !+#!&(%8(!*!&! ? #7(;!5\$!45&!I*%*K;(!H*!&!&!&FK+;(!+##;!+4*+!<#58(.(7!
 45&!<%5+5NF(!#)!G# ? *\$!5 ? I(%5*;!I#H(%!*\$7!57(#;#A.0!I*%+5<F;*%;.!.!+4(!57(*!+4*+!+4(!;5+(!
 H*%*\$+(7!F\$<4(<C(7!I%585;(A(&!*\$7!&+*+F&!#8(%!#+4(%&!OFC(!*5 ? (7!+#!<#58(.!+4(! ? (&*A(!
 +4*+!5+!H*!&!+4#&(!H4#!%(<#A\$5^(7!+4(5%!&5\$&!*\$7!(+45<*;!)*5;5\$A&!H4#!(*%\$(7!+4(5%!I;*(<(!5\$!+4(!
 h5\$A7# ? !#)!@#7>!34(!9*%*K;(!#)!+4(!94*%5&(!!*\$7!+4(!3*X! : #;;(<+#!H*!&!&!&FK+;(!
 #II#&5+5#\$*;!+##;!F&(7!5\$!OFC(M&!@#&I(;>!S 5+4!+4(!I%#TG# ? *\$!&(\$+5 ? (\$+!#)!+4(!UIFK;5<!
 +%*\$&<%5I+V!+4*+!H*!&!5\$+(%;*(<7!+4%#FA4#F+!OFC(M&!@#&I(;0!#\$(! ? * .!4*8(!K(;5(8(7!+4*+!OFC(!
 H*!&!5\$!*A%((? (\$+!H5+4!G# ? *\$!5 ? I(%5*;!57(*;&0!KF+!<;(*%;.0!OFC(M&!4577(\$!+%*\$&<%5I+!#)!&+*+F&!
 %(8(%&*;!*\$7!%(&5&+*\$<(!+#!G# ? *\$!5 ? I(%5*;!57(*;&!*\$78*\$<(&!*!UI#;5+5<&!#)!75&&(\$+!*\$7!
 &FK8(%&5#\$V!+#!+4(&(!57(*;&!)

!

J>!34(!9*%&5#\$!Y*%*%+58(0!OFC(!

OFC(M&!*<<#F\$+!#)!+4(!9*%&5#\$!Y*%*%+58(!5&!+4(!F;+5 ? *+(!X(? I;5<*+5#\$!#)!&+*+F&!

%(8(%&*;>!34(!7(*+4!#)!=(&F&!5&!#)+(\$!+4#FA4+!+#!K(!&. ? K#;5<!#)!@#7M&!I# ? 5&(7!&*;8*+5#\$!*\$7!
 +4(!(*%&F%(!#)!&5\$>!34(!&5A\$*;!#)!@#7M&!<# ? 5\$A!h5\$A7# ? !5&!75&AF5&(7!5\$!OFC(M&!&+*+F&!
 %(8(%&*;>!34(!&<4#;*%!=#(;!

<# ? (!)*<(T+#T)*<(!H5+4!H4*+!5&!)#%!OFC(!+4(!7())5\$5+58(!%(8(%&*;,!+4(!G5A4+(#F&!R\$(j 0!
 %(I(*+(7; . !7(<,*%(7!5\$\$#<(\$+!K. !+4(!G# ? *\$!*F+4#%5+5(& j 0!5&!(X(<F+(7!5\$!+4(!H* .!
 %(&(%8(7!)#% !+4#&(!#) !;#H!&+*+F&0!K. !<%F<5)5X5#\$0!#\$\$; . !+#!K(!%*5&(7!FI!K. !@#7>!@#7!
 %*5&(&!FI!+4(!;#H; . 0!85\$75<*+(7!+4(!)*5+4)F;>!)#!

! S 5+4!45&!*&+F+(!#K&(%8*+5#\$&0!@%(\$!*; ;#H&!+4(!%(*7(%!+#!%(<#A\$5^(!+4*+!&+*+F&!%(8(%&*;!<*\$!

\$#+!#\$\$; . !K(!)#F\$7!5\$!=(&F&M!+(*<45\$A&!*\$7!I%(*<45\$A&0!KF+!*;&#!5\$!+4(!* <+&!4(!<# ? ? 5+&>!

: # \$&57(%5\$A!+4(!)*<+!+4*+!=(&F&15&!K#+4!%*5&(7!)# ? !+4(!7(*7!*\$7!%*5&(7!+#!4(*8(\$0!

7(? # \$&+*+(&!45&!%(8(%&*;!)%# ? !*!4F ? K;(15

K;(!+#!7(<5I4(%!+45&!75&&(\$+!5\$!=(&F&M!)5\$;!*<+!#)!&+*+F&!%(8(%&*;>!34(!%(&F%%(<+5#\$!*\$7!

&<(\$&5#\$!#)!=(&F&!X(? I;5) . !D<#++M&!\$AF ? (\$+!5\$!+4(!&(\$&!+4*+!+4(. !H(%(! ? *7(!IFK;5<0!KF+!

4*7!+#!K(!5\$+(%I% (+7!+#!+%F; . !F\$7(%&+*\$7!+4(! ? (&&*A(!#)!&FK8(%&5#\$>!

OFC(!K%5\$A&!45&!\$*%*+58(!+#!*!<;#&(!H5+4!+4(!*&<(\$&5#\$!#)!=(&F&0!*\$7!+45&!*&<(\$&5#\$!%(8(*;&!

+4*+!+4(!<# ? 5\$A!h 5\$A7# ? !#)!@#7!5&!)#%!+4#&(!H4#!4*8(!\$#+! . (+!K((\$!(X*+;(7>! - 5;;(%!#K&(%8(&,&!

U S 5+4!45&!<%F<5)5X5#\$!*\$7!%(&F%%(<+5#\$0!=(&F&!K(<# ? (&!+4(!<(\$+%;!(? K#75 ? (\$+!#)!@#7M&!

%(8(%&5\$A!*<+5#\$!*&<(;(K%*(7!5\$!+4(! - *A\$5)5<+0!*;;!+4(!H* . !K*<C!5\$!OFC(M&!)5%&+!<4*I+(%V>

!

/E

J ?<!> '&\$+#0*' &,! "#\$%&!

!'&!()*%+,!(6/!J/).*\$2!

%(8(%&*;!H(%(!*;&#!I*%+!#)!45&!!'#\$#%&!>!B#%!(X* ? I;(0!H(!4*8(!&(((\$!+4*+!OFC(M&!6\$+5T=F7*5<!

K5*&!5&!5\$<#%I#%*+(7!5\$+#!+4(!9*%*K;(!#)!+4(!94*%5&((!*\$7!+4(!3*X! : #;;(<+#!%>! " #H(8(%0!+45&!

I*%*K;(!*;&#!*78*\$<(&!*! ? (&*A(!#)!75&&(\$+0!K(<*F&(!+4(!IF%5+ . !;*H&!*(!F\$7(% ? 5\$(7>!34*+!

=(&F&!I%(*<4(&!+4*+!*\$!F\$<;(*\$!+*X!<#;;(<+#!H5;;!(*<4!+4(!h5\$A7# ? !#)!@#7!#8(%!+4(!

%5A4+(&F&!94*%5&((!(I%(&(\$+&!*<#F\$+(&T<F;+F%*;!% (8(%&*;!#)!&+*+F&!5\$!+4(!G# ? *\$!H#%;7>!!

L+!5&!*;&#!H#%+4!\$#+5\$A!+4*+!5\$!+4(!OF<*\$!\$*%*%+58(!#)!+4(! - *A\$)5<*+0!+4(!9*%*K;(!#)!+4(!

G5<4! - *\$!*\$7!O*^%F&0!+4(!9*%*K;(!#)!+4(! [\$eF&+!=F7A(0!*\$7!+4(!9*%*K;(!#)!94*%5&((!*\$7!+4(!

3*X! : #;;(<+#!%0!OFC(!I%#+(+&!+4(! ? (&(\$A(%&!*&!4(!75&AF5&(&!+4(5%!57(\$+5+5(&!5\$!#7(%!+#!*8#57!

%(I%#*<4!)# ? !+4(!G# ? *\$!;(*7(%&!6&!H(!4*8(!&(((\$0!+4(!57(*!#)!U4575\$A!+4(! ? (&*A(V!#%!

U75&AF5&5\$A!+4(! ? (&(\$A(%V!5&!#\$(!#)!D<#++M&!I%5 ? *% . !*%AF ? (\$+&!*&!+#!H4 . !+4(!4577(\$!

+%*\$&<%5I+!4*%&!K((\$!&#!&F<<(&&)F;+4*#FA4#F+!5+&!45+&#% .>! ' 5&AF5&5\$A!+4(! ? (&(\$A(%H*&!8(% . !

I#IF;*%!H5+45\$!+4(!OF<*\$!+*%\$&<%5I+!K(<*F&(!D<#++!\$#+(&0!U>>+4(!+4(%*+!5&!*;;!+##!

* ? K5AF#F&V>!* . ! : #\$(NF(\$+; . 0!+4(!8(5;5\$A!#)!+4(! ? (&(\$A(%M&!57(\$+5+ . !H#F;7!4*8(!A58(\$!+4(!

F+4#%5+5(&!\$#!#\$(!+#!%(%&+0!*&!+4(%(!H*%&!#!#\$(!75&+5\$<+!)5AF%(!H4#!H*%&!&FK8(%+5\$A!+4(5%!

F+4#%5+ .>!345&!\$#+5#\$!5&!(&I(<5;; . !+F(!H4(\$!(X* ? 5\$5\$A!+4(! - *A\$)5<*+0!*&!H(!4*8(!&(((\$!+4*+!

+4(!<4*%*<+(!#)! - *% . !H4#!;58(7!5\$!+4(!75&+*\$+!I*%&!*\$7!H*%&!*;&#!\$#!(XI;5<5+; . !57(\$+5)5(7!*\$7!

&#!<#F;7!\$#!+4*8(!K(\$!&FKe(<+#!#!IF\$5&4 ? (\$+&!)

OFC(M&!I#%+*% . *;&!#)!=(&F&M!%(&F%(%<+5#*\$!*\$7!*&<(\$&5#*\$!*(!%AF*K; . !+4(!<F; ? 5\$*+5\$A!

(8(\$+&!#)!+4(!4577(\$!+*%\$&<%5I+>!34(&(!8(\$+&!I%#8(!+4*+!=(&F&M!+(*<45\$A&!*\$7!I%(*<45\$A&!4*8(!

!* ,!D<#++0!O#I&*!,&#*+!* (+, ') +2-, . +#3+4) . & . , !*/)0!E] \>!

()#%&!+#!&I%(*7!5&! ? (&&*A(>!O5C(H5&(0!+4(! ? *e#%5+ . !#)!)4(! ? (? K(%&!5\$!+4(!OF<*\$!
<# ? ? F\$5+5(&! ? * . !4*8(!K((!\$!I(%&(<F+(7!K. !+4(!&* ? (!G# ? *\$&!+4*+!OFC(!H%#+(!45&!! "#\$#%&! !
)#%0!<#\$&(NF(\$+; . g!OFC(!\$((7(7!+#!7(85&(!45&!4577(\$!+%*\$&<%5I+!5\$!#%7(!)##!+4(&(! : 4%5&+5*\$&!+#!
(\$7F%(!*\$7!I(%&(8(%(!+4%#FA4!+4(!I(%&(<F+5#\$&>!34(!OF<*\$!5\$)* I#;5+5<&!+4*+!H*!&!+!I;* . !
H5+45\$!45&!4577(\$!+%*\$&<%5I+&!H*!&!7(&5A\$(7!+#!I% (8(\$!+* <+58(!%K(;;5#\$! * ? #A!<# ? ? F\$5+ . !
? (? K(%&0!K(<*F&(!45&!(X(? I;5)5<*+5#\$&!#)!)&+*+F&!% (8(%&*;!F);5;;(7!D<#++M&!)5\$75A&0!H45<4!
&FAA(&+(7!+4*+0!U 6 ;;#H5\$A!&FK#%75\$*+(!A%#FI&!+#!I;* . !*+!% (K(;;5#\$!H5+45\$!&I(<5)5(7!%F;(&!*\$7!
+5 ? (&!4(;I&!I% (8(\$! ? #%(!7*\$A(%#F&!)#% ? &!#)!*AA% (&&5#\$>V!*#!OFC(!&FII% (&&(7!+4(!7(&5%(!)#%!
#F+%5A4+!% (K(;;5#\$!+4%#FA4!45&!4577(\$!+%*\$&<%5I+!#)!)&+*+F&!% (8(%&*;!K(<*F&(!4(!C\$(H!+4*+!+4(!
G# ? *\$!*F+4#%5+5(&!H(%(!+##!I#H(%F;!+#!K(!7()(*+(7!K. !*!I(*&*\$+!% (K(;;5#\$>!34(!(*% ; . !=(&F&!
? #8(? (\$+!\$((7(7!<#\$)57(\$<(!5\$!@#7M&!&*85\$A!I#H(%!&!H(;;!*&!<# ?)#%+!5\$!C\$#H5\$A!+4*+!+4(5%!
#II% (&&#%&!H#F;7!K(!IF\$5&4(7)##!+4(5%!F\$eF&+!*<+&!+H*%7&!+4(!(*% ; . ! : 4%5&+5*\$&!OFC(!
*<45(8(7!K#+4!#)!)4(&(!*5 ? &!K. !H%5+5\$A!45&!A#&I(;!*&!*\$! ! "#\$#%&! !+#!+4(!G# ? *\$!*F+4#%5+5(&!
` 6' (!*!4577(\$!+%*\$&<%5I+!)#%!+4(!(*% ; . !=(&F&! ? #8(? (\$+!!

! !

!*#!D<#++0! 0# I k*!,&#*+!* (+, ')+2-.,.+#3+4).&.,!*/)0!E/d!

!

/d

!

/c

!

D<4*K(%A0!=\$(!UOFC(>V!L\$!B#I)*W.+<k=\$)+H#I I)*,!-C>+@;"!*()(+@(&,k#*>!J75+(7!K.! : *%#;! 6>!